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Delta Reports, Volume I

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DELTA REPORTS

Research in Lower Egypt

Volume I



The Akhenaten Temple Project

DELTA REPORTS

(Research in Lower Egypt)

VOLUME I

edited by
Donald Redford

The Akhenaten Temple Project
The Pennsylvania State University

Oxbow Books
Oxford and Oakville

Published by
Oxbow Books, Oxford, UK

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ISBN 978 1 84217 244 5
EPUB ISBN: 978 1 78297 271 6
PRC ISBN: 978 1 78297 272 3

A CIP record for this book is available from the British Library

This book is available direct from
Oxbow Books, Oxford, UK
www.oxbowbooks.com

and

The David Brown Book Company
PO Box 511, Oakville, CT 06779, USA
(Phone: 860-945-9329; Fax: 860-945-9468)

or from our website

www.oxbowbooks.com

Printed in Great Britain by
The Information Press, Eynsham
Oxfordshire

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DELTA REPORTS I

Preface

With this first volume of *Delta Reports* we achieve a goal of long-standing, viz. to make available in an interim, though detailed, form the results of the substantial archaeological work which has been undertaken in the Delta over the recent decades. The material from the excavations of Mendes which comprises all of the present volume used to enjoy dissemination through the *ATP Newsletter* (discontinued two years ago), under the aegis of the Akhenaten Temple Project; but the limited format and brevity of this organ prevented the publication of detailed reports. Final publications of “digs” often suffer from delayed contributions, postponement through fear of “finality,” funding impediments and a host of unforeseen problems. The format and extent envisaged for *Delta Reports*, poised between “final” and “interim,” will, it is hoped, surmount any such difficulties and in some cases obviate the need for a final publication.

The archaeological results set forth in the present volume come from work done in and around the temple of Ba-neb-djed in the Northwest temenos at Tel er-Rub’a (Mendes). The seasons devoted to these excavations encompass the summer campaigns of 1996, 1998–2001, and 2003–4; while Matthew Adams’ important contribution to the Old Kingdom stratigraphy and ceramics reflects the expeditions of 2001 and 2003–5. Alicia de Rodrigo and Rexine Hummel offer specialized studies of two caches of pottery, one from the 19th Dynasty and the second from the early Roman period. Finally, Frank Holt analyzes a group of significant coins which help delineate the final days of the temple of the ram.

We welcome submissions from anyone working in the Delta, and encourage contributions for *Delta Reports* volume II. Part of the latter will be given over to the Old Kingdom Temple, the collapse of the Sixth Dynasty and the onset of the First Intermediate Period. Special reports will deal with the geology of the site, and palaeo-botanical remains. My warmest thanks go to all the contributors of this volume, and to my former student Kyle Long, who edited the MS.

AN INTERIM REPORT ON THE TEMPLE OF THE RAM-GOD AT MENDES

Donald Redford

The early campaigns at Tel er-Rub'a/Mendes,¹ from 1992 to 1995, were devoted to the excavation of the royal necropolis in Field AL, due east of the main temple. It was not until 1994 that the decision was taken to transfer our efforts to the elucidation of the *Baugeschichte* and context of the main temple of the ram-god, Ba-neb-djed. Consequently, between 1995 and the present, all but two seasons were devoted to the main temple area. The first three were conducted under the aegis of the University of Toronto, the remainder under the sponsorship of the Pennsylvania State University. These investigations are ongoing.

The "gazeteer" contained within the stela of Ptolemy II² reveals the names of a variety of installations of a sacred nature at the site; but the "House of the Ram, Lord of Djedet" can only be identified with the large structure, today a total ruin, lying within the great north-west enclosure. The NNE orientation of this structure (12 degrees off true north) is ancient, probably antedating the Old Kingdom; but the reason for this alignment has yet to be revealed. The temple structure sits upon rising terrain which juts northward into relatively low-lying land, like a peninsula. On the north and west sides this "peninsula" rises nearly two meters above the surrounding flats, and slightly less on the east. This promontory cannot be adequately explained by human occupation-differential, the height and the surrounding flats yielding alike a surface scatter of Late Old Kingdom and First Intermediate Period pottery. It seems more likely that, whatever may have happened at the close of the 6th Dynasty, the difference in elevation was originally occasioned by the sometime presence of water, in the form of either lagoons or water courses, which more or less isolated the terrain on which the original shrine was built.³

The temple ruins still visible above ground are oriented towards the (local) north and comprise several distinct parts (see plan, Fig. 1). The first, i.e. the northernmost unit, is a court or open space, approximately 35 meters long and 60 meters wide. The floor of the court was presumably of beaten earth, but any remaining surface has disappeared partly through natural erosion and partly through excavation. The side walls of mud-brick have similarly been completely removed, although on the east side the sand foundations could partly be detected. Forming the northern side of the court was a pylon of limestone. Although only about 32 blocks have survived,⁴ and these wholly disarticulated, the foundation trench filled with fine sands⁵ is still in evidence. Excavations revealed the following over all dimensions of the pylon: each massif 28.5 meters long and approximately 6–8 meters wide, with a gate in the center 3–4 meters wide. These dimensions fall only slightly short of those of the Luxor pylon, although the first court at Mendes is considerably smaller than its Luxor counterpart. The pylon sits somewhat precariously on the northern edge of the “peninsula” described above, and two meters above the depression to the north; yet it obviously survived into the Middle Ages.⁶

The date of the pylon would have been difficult to ascertain archaeologically. We attempted to retrieve a foundation deposit in the east wing, but found that everywhere, east and west, the sand-fill had been churned up. Sections revealed pits and declivities in the sand, back-filled with limestone chips, where robbers had removed blocks for the lime kilns (Pl. 1). More modern diggers had also been present: pieces of modern glass and about a dozen bullets were found in the fill, along with two newspaper fragments, one dated to 1946, the other (French) with no date, but mentioning Sir Reginald Oakes. While the former puts one in mind of Labib Habachi’s work at the site in the postwar years,⁷ the latter must attest the presence of Naville in the late 19th century.

Two items of inscriptional evidence helped to clinch the date of the first pylon. One was a limestone block, long known,⁸ lying today about 10 meters inside the pylon gate. It bears two horizontal bands of text with parts of the cartouches of Ramesses II and Merenptah. The whole resembles similar bands inscribed at the base of reveals of pylon doors at other sites, and dating from the same two reigns.⁹ In the present case the block must originally have stood on the east side of the pylon gateway. A second inscription (Pl. 2) was uncovered in the 1994 campaign on a block from the east wing of the pylon. Here a horizontal band of text reads *Mr.n-[pt]h*. Although additional

fragments of limestone have turned up in the foundation sand, some painted, no further clue was recovered as to how the facade of the pylon had been decorated. But that it was the work of the 19th Dynasty cannot now be denied.

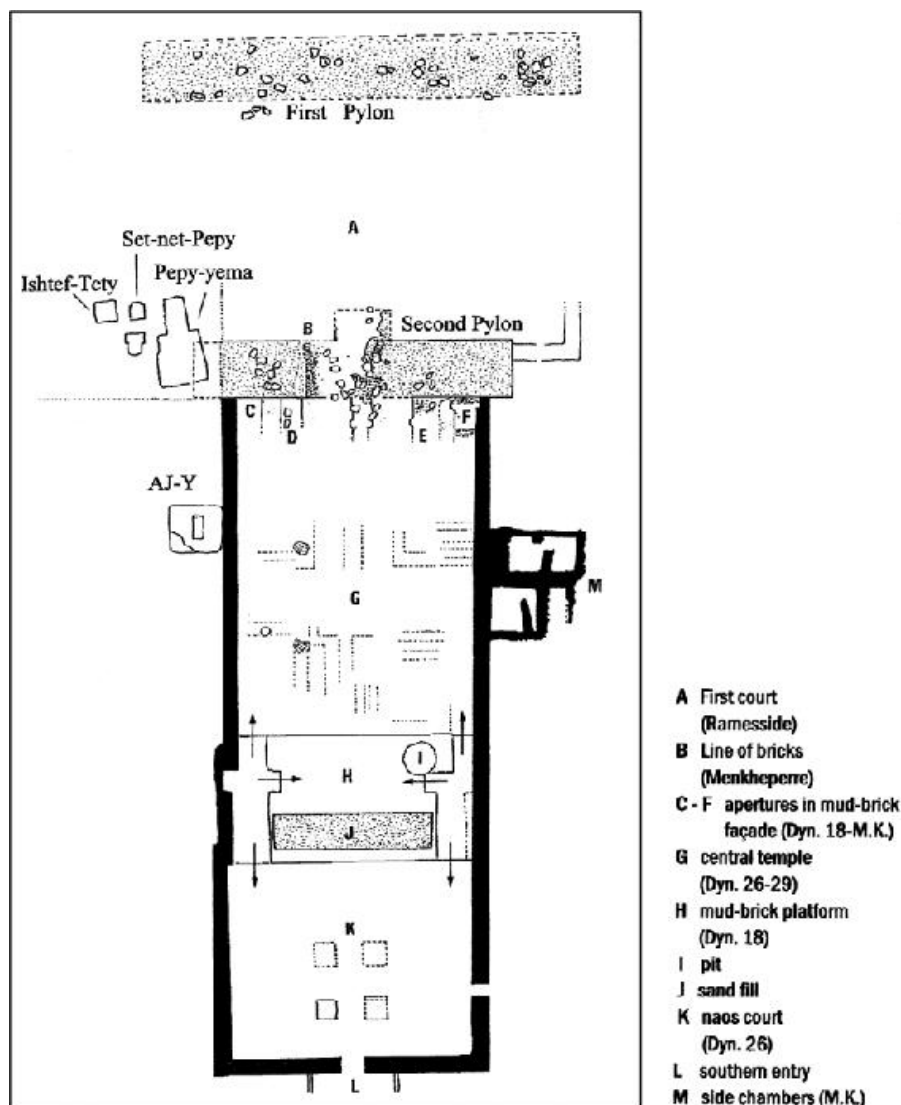


FIG. 1. Plan of the temple of Ba-neb-djed, Tel er-Rub'a, showing distribution of identified pylons, rooms and other components, as of summer, 2005.

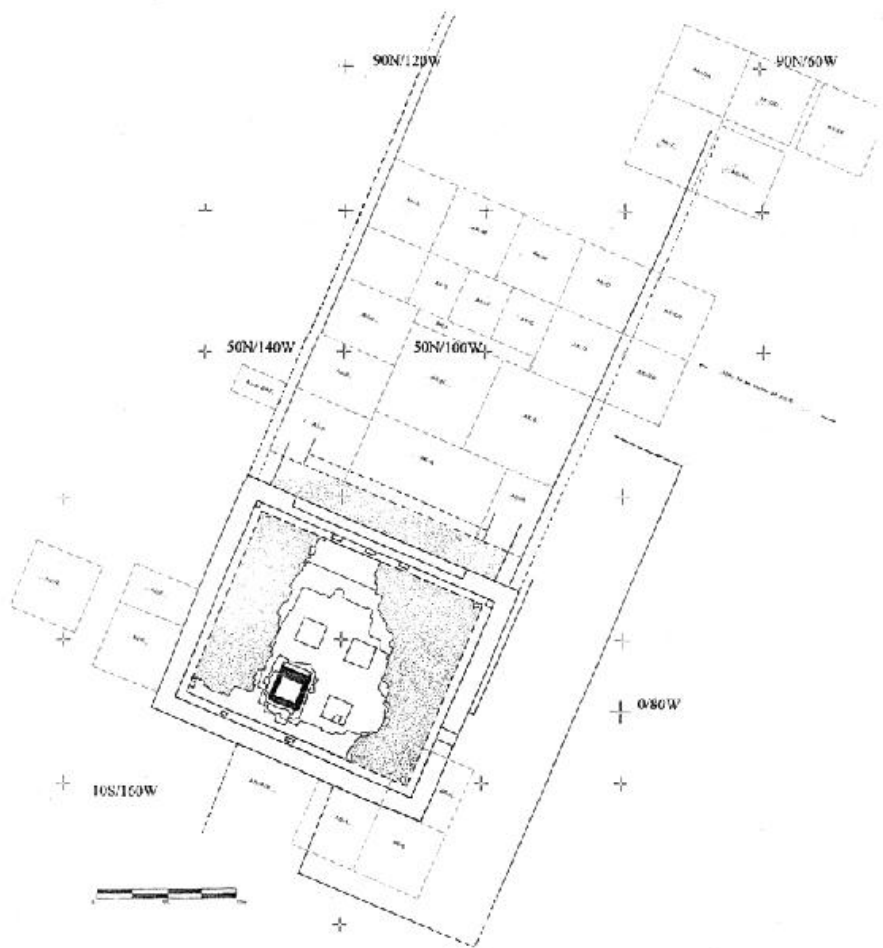


FIG. 2. Plan of the temple of Banedbdjed currently under excavation, showing distribution and identity of the excavation units to date.

THE SECOND PYLON

The rear, i.e. the southern side, of the first court is denuded. A block still in situ on the main north-south axis of the temple indicates the erstwhile presence of an outwork in which was set a gate, and to this probably once belonged an adjacent block of diorite incised with the cartouche of Ramesses II.¹⁰ But the lateral surface in which it was once set is in a sad state of preservation. In fact it appears to be a lateral east-west mound, about 5 meters wide north-south on both sides of this putative gate.

Under excavation (units AK-00 and AK-AA) this lateral “mound” turned out to be the northern edge and last surviving “spit” of

stratification fronting the temple (now gone) of Middle and New Kingdom date.¹¹ This stratification had survived until the end of the 13th Cent. B.C. when, in the course of renovations, it was cut down on its southern side by an east-west foundation trench measuring 10 meters (north-south) by c. 45–50 meters east-west. The trench descended to a point nearly two meters below the then surface, and was originally back-filled with fine foundation sand (Pl. 3; Fig. 2).¹² The depth and size of this foundation trench militates in favor of a massive construction, probably in stone, clearly a second pylon. At its eastern end, in unit AK-FF, a sand-filled depression c. 2.5 meters wide runs east for about 11 meters then turns north at a right angle (Pl. 4). This marks the foundation of the lateral wall enclosing the first court on its eastern side. Just beyond the point of turning, another sand patch, 2 meters wide, leads west across a large rectangular patch of limestone chips, which marks the soubassement of a granite threshold of a postern gate (Fig. 2a). In fact, part of a granite jamb, 1.20 × .78 × .56 cm. was found beside the soubassement, thus supporting the postulate of a gate (Pl. 27).

The author of these constructions is not in doubt. In unit AK-00, flush with the northern edge of the 10-meter wide foundation trench, was found a foundation deposit; and 10 meters due west in the same position a second and almost identical deposit came to light. Each deposit contains 15 amulets of faience, 10 small pottery vessels, and a stone “brick” with the cartouche of Merenptah (Pls 5–6).¹³ The same king’s nomen and prenomen, in a much-worn state, can be made out upon the granite door-jamb referred to above (Pl. 27).

It appears certain, then, that in the outgoing 19th Dynasty a second pylon stood about 35 meters south of the first pylon; and that both were claimed to be the work of Merenptah. To judge, however, by the gate block just behind the first pylon, and the diorite jamb belonging to the second, Ramesses II himself laid an equal claim to the construction of both. Moreover, it is curious that Merenptah did not secrete his foundation deposits, as would normally be the case, in the foundational sand,¹⁴ but rather in oval pits just below ground level (at this point c. 11 meters a.s.l.), and abutting the outer (northern) face of a pylon already in place! In fact the second deposit must have used the face of the pylon as the southern edge of its pit. These anomalies might be explained by hypothesizing that the renovations at Mendes had come late in the reign of Ramesses II, and were completed only after Merenptah came to the throne.¹⁵

Ramesses II’s and Merenptah’s construction activity at Mendes may reflect an interest that is not fortuitous. From the Ramesside age the theology of the ram-god achieves a new metaphysical plateau in the concept, deriving from earlier tenets, of the cosmic ram *quadrifrons*.¹⁶

At the same time his older role as progenitor of the king-to-be¹⁷ becomes prominent in association with Ptah:¹⁸ (the latter to Ramesses II) “I changed my form into Ba-neb-djed and impregnated your precious mother in order to produce your (earthly) form.”¹⁹ Increasingly under the Ramessides Ba-neb-djed becomes a special object of veneration;²⁰ and one Ramesside in particular may have enjoyed a family relationship with Mendesians.²¹

THE CENTRAL PART OF THE TEMPLE

The second constructional unit of the temple, i.e. that lying behind (south of) the second pylon is arguably the oldest in the complex. It occupies a stretch of ground approximately 60 meters in extent north-south, immediately to the north of the (later) naos court of Amasis and its approach. In this swath of ground the architects, most probably during the reign of Amasis, had excavated a sort of trough, 40 meters wide (i.e. the width of the temple) to a depth of between 2 and 2.5 meters, thus destroying much of the then-existing occupational accumulation dating from the Middle and New Kingdom. The cavity thus created was back-filled with clean building sand, poured in mainly, to judge from the tip-lines, from the eastern side, to support the weight of a superstructure consisting of flooring, columns and walls. None of this survives in situ. Prior to our excavation the surface of this area comprised sand mixed with shattered fragments of limestone, granite and quartzite, lamentable evidence of the pillaging the temple has suffered. This rubble layer ranged from 1.25 to 2.0 meters in depth, and represents the smashing up of the temple in late mediaeval times.

Though the destruction was virtually complete, scattered fragments combined with stratigraphic clues enable us to form a picture of the ground plan for which the sand foundation was laid. As the temple was in process of being dismantled, the wall blocks had been removed to the foundations and into the cavities thus exposed chips and rubble had inevitably fallen. In excavation we found these cavities as vertical, rectilinear “slots” within, but quite distinct from, the foundation sand, at regular intervals in the baulks of the excavation units (Pl. 7; Fig. 5). When planned the “slots” took on a strikingly rectilinear pattern (Fig. 1 [G]) which served only to reinforce the hypothesis that they must represent the position of walls at one stage in the history of the temple. On the basis of the analysis of these “slots” it can be affirmed that the central part had been bounded on the south by a limestone wall about 2 meters thick. We can also discern the presence of side chambers, east and west of the axis, as well as a substantial wall *along*

the axis, thus running north-south. It is a fair guess that this was the underpinning of the emplacement of a barque-shrine²² which articulated with a centrally placed cella immediately to the south. That a cella had once existed at approximately the line dividing excavation units AK-G and AK-H, i.e. axially placed, is strongly suggested by the diorite naos fragment (see below) found at this point. Rectilinear depressions in the surface of the Old Kingdom podium²³ beneath the sand foundation were found to fit surviving granite pier blocks still present in the area. We can thus posit the sometime presence of granite piers to the left and right of the front of the barque shrine. (Additional lateral emplacements have been suggested, and might argue for the presence of a ptered ambulatory). The evidence from the northern extremity of our current excavations suggests a continuation of side chambers, albeit with thicker walls, and possibly an axial wall of substantial dimensions bifurcating the ground plan. Two diorite column drums were found in unit AK-B on the west side of the temple. Their diameters, 86 and 81 cm. respectively, point to a ceiling elevation of no more than about 3 meters for the side chambers. Surviving fragments of flagstones militate in favor of flooring 0.50 cm. thick. Some fragments of quartzite with green patina indicate the sometime presence of metal locks.

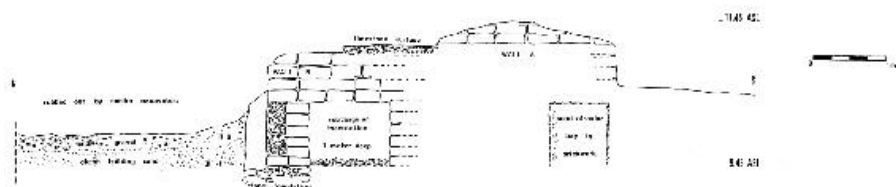


FIG. 3. Section AK-AA, facing east. The limestone surface (at 11.12 a.s.l.) Represents the level of the floor of side chambers during the New Kingdom. The foundation trench (II 8 and 11) was sunk through earlier strata of New and Middle Kingdom date by Ramesses II and Merneptah to receive the second pylon. The rectangular indentation and semi-circular bay in the mud-brick belong to the foundations of a gate with two doors – threshold (now lost) at c. 10.40 meters a.s.l. – which represents the easternmost entry through the brick facade of the pre-Ramesside temple.

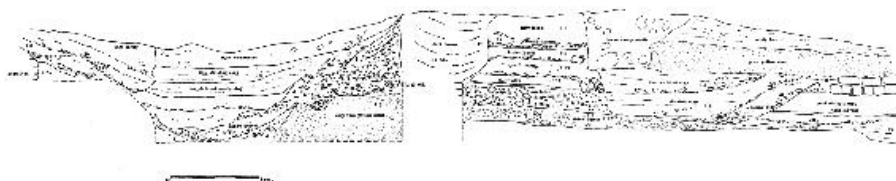


FIG. 4. AK-FF I, facing west. The sand loci represent the foundation trenches for a gate installation at the north-east angle of the New Kingdom temple, i.e. the east end of the second pylon (or transverse hall). The rectangle of limestone chips occupies a position on the right half of the section. The underlying levels into which the sand

intrudes date to the late Middle Kingdom.

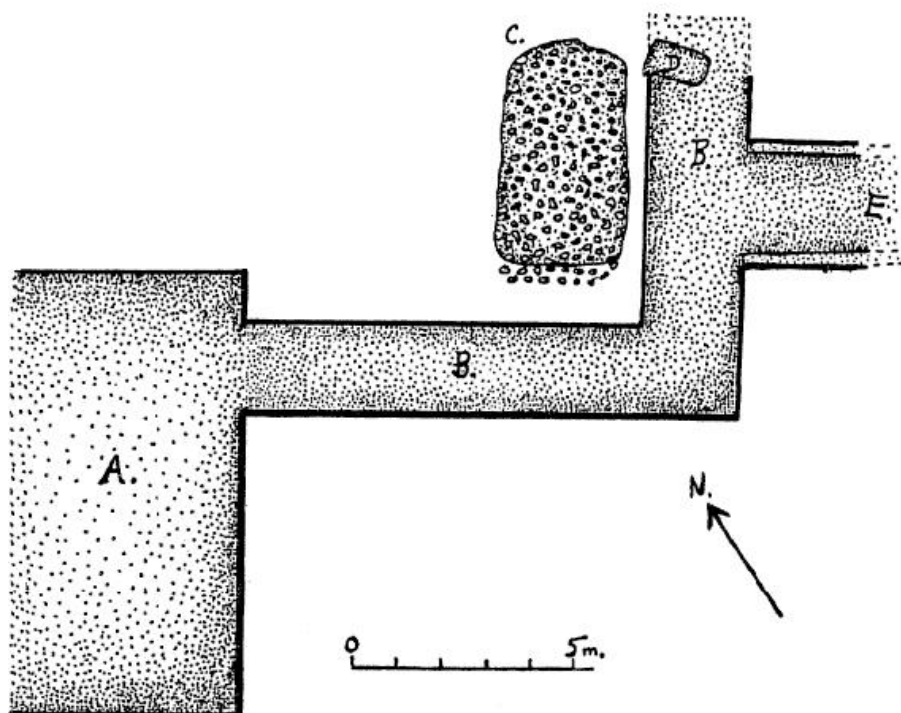


FIG. 4a. Plan of AK-FF, showing lateral gate into first court. A: eastern end of foundation trench of first pylon; B: enclosure wall of first court, east side; C: cobble threshold of lateral gate; D: granite jamb of Merenptah; E: approach to lateral gate from east.

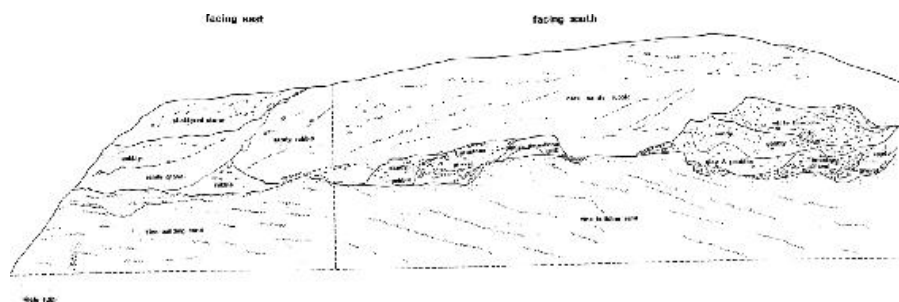


FIG. 5. AK-H I. The section illustrates the phenomenon of the "slots" seemingly sunk into the foundational sand, and revealing the erstwhile presence of wall-foundations, now back-filled with destruction debris.

- Fragment of quartzite with incised text [...] *sm3-t3wy*; AK-A, f.n. 1 (not pictured).
- Fragment of quartzite, incised with part of an offering scene: ewer with lotus, flanked on the right by a feather; traces of text above [*D*]d-[*mdw*] *di.n.i* [...], “[Utter]ance: I grant [thee ...]”; AK-A Ext., f.n. 20 (Pl. 19).
- Fragment of incised quartzite, showing rectilinear enclosing lines flanking a *nb*-sign, supporting a vertical *en^h*-sign; AK-A, f.n. 2 (Pl. 20).
- Fragment of incised quartzite, showing *nb*-sign support *en^h*- and *w3s*-signs; AK-A, f.n. 13 (Pl. 21).
- Fragment of quartzite in raised relief, showing vertical *en^h*-sign; AK-B, f.n. 3 (Pl. 22).
- Fragment of limestone with *sd*-pavillion in raised relief (length 4 cm.); AK-N, f.n. 12 (Pl. 23).

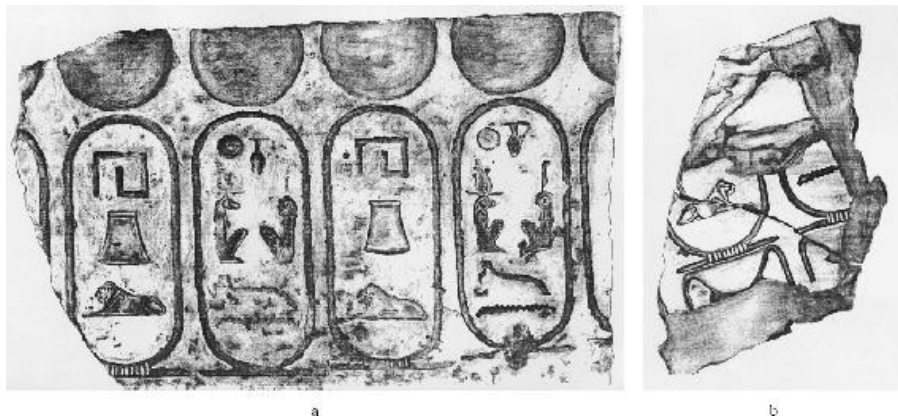


FIG. 7a-b. Facsimiles of fragments of the Hakoris dado, central temple, east side.

The material of most of the inscribed fragments, viz. red or yellow quartzite, is identical with the vast majority of the stone debris in the central portion of the temple. Only the ceiling and some walls on the south side (the cella?) were done in limestone (cf. Nos. 4, 4a, 5, 18). One is tempted to postulate a program of “veneering” in quartzite of an earlier structure, exactly as in the case of the temple at Buto,²⁵ clearly dated to the reign of Amasis.²⁶ Indeed, most of the inscribed and architectural pieces reviewed above come without doubt from the Late Period, i.e. the Saite through 30th Dynasties.²⁷ The question immediately arises: does this unanimity in date provide a clue as to the date of the renovations in this central part of the temple, indicated by the deep foundation sand? Was the decision to rebuild here taken at the same time as the plan to construct the naos court, i.e. under Amasis? The ceramic record might be taken as supporting an affirmative answer: throughout the sand fill and destruction debris copious amounts of late Roman forms (especially amphorae) were recovered, along with a very little Ptolemaic and East Greek.²⁸ Nothing predated the Saite period. To date, of course, no foundation deposits have been unearthed in this sector of the temple.

If it was the outgoing Saite period that witnessed the overall design for the center and rear apartments of the temple, it is nonetheless clear that a good portion of the decoration was executed under the 29th and 30th Dynasties. This included dados (in two formats) of Hakoris's vertical cartouches,²⁹ and a dado of *nb*- supporting *enb*- and *w3s*-signs, both around the bases of walls, and a band of text from Nektanebo I's first year,³⁰ possibly commemorating restoration work. The beginning of this text lay on a wall somewhere in the vicinity of the south-east angle of the central part of the temple, near the east back entry to the naos court. At the north-west angle of the same part of the temple, near the western end of the second pylon, lies a similar quartzite block with a band of text reading "[...] His Majesty, filling the house of his father [Ba-neb-djed with ...]".³¹ This need not be – its remote location suggests otherwise – a continuation of the Nektanebo text: it could as easily date from the 26th or 29th Dynasties. The side rooms postulated in the reconstruction suggested above would have been given over to guest cults. Walls were decorated with standard metopes of offering scenes, significantly lacking the *horror vacui* of Ptolemaic decoration.

THE NAOS COURT OF AMASIS

As suggested above, it is tempting to construe the renovations in the central part of the temple as part of the same comprehensive design of renovation that introduced the great naos-court into the temple plan. This major construction of four monolithic naoi of Aswan granite, to accommodate the four avatars of the Ram,³² was clearly the work of Amasis.³³ Its size necessitated monumental construction techniques. To prepare for the weight of four monolithic naoi of granite, each nearly 8 meters tall, the architects resorted to the excavation of a foundation pit c. 40 × 32 meters in dimension, and of great but (as yet) indeterminate depth. A sand fill was laid in the bottom of this pit and the north, west and south sides were strengthened with a retaining construction consisting of a mud-brick wall, c. 1.5 meters thick, backed by a sand and rubble fill approximately 4.5 meters thick on the south and west sides (Fig. 6) and 5 meters on the north (Fig. 1 [J]). Into the pit were now introduced six courses of limestone blocks, each approximately 1 meter deep, each course fitting snugly against the surrounding retaining walls of mud-brick.³⁴

The architectural arrangements on the east side of the naos court did not conform to those on the other three sides. On the east side, close to the south-east corner of the temple, there exists today an aperture through the surrounding retaining wall which at first glance

appears to be recent. It has been argued that it was through this gap, intentionally broken through the solid mud-brick, that in recent times the limestone blocks of the soubassement of the court were hauled out by clandestine diggers to be smashed up and committed to the kilns. Under the conditions imposed by such a thesis the section through the aperture would clearly reveal whether or not an otherwise solid mass of brick had indeed been broken through. In order to pursue a solution to the problem posed by the aperture, the south face of the cut was smoothed down vertically and the bottom of the aperture cleared of debris. The north face required minimum cleaning.

The results were definitive (Fig. 8; Pl. 24:1–2). The overall width of the Amasis temenos circumvallation (hereinafter ATC) on the *south* side of the aperture was found to be 19.50 meters. This enormous mass of brickwork consisted of black, alluvial bricks, with a considerable admixture of straw and dung, measuring on average $42 \times 22 \times 15$ cm. While the mass proved in fact to be foundational – in Amasis' time the terrain on the east side of the planned court must have been insecure – the wall it once supported must have soared to not far short of the height of the naoi themselves.³⁵ On the *north* side of the aperture the width was drastically reduced to 11.50 meters (Fig. 9), and here the remains of the superimposed wall seemed to be about 5 meters thick (Fig. 9 [D-F]). But what arrested attention in the southern face was the presence of a sloping ramp with a gradient of 17 degrees from ground level on the east to 4 meters below that point when it debouched into the naos court. The surface of the ramp was made up of compacted limestone chips, this “paving” varying in thickness but reaching its maximum (c. 40 cm.) at the western end of the slope (Pl. 24:1). No evidence was immediately forthcoming as to whether the limestone chip bed had been intentionally laid, or whether it was the result of the pulverization of the underside of blocks dragged along the ramp. One fact, however, was certain: the height of the ramp on the eastern end reached a point entirely consonant with the level of the surrounding terrain from the end of the 3rd Millennium B.C. until present.

Our decision to clean both faces of the aperture along its entire extent unintentionally revealed the true nature of the stratigraphy. These are the conclusions we reached:

A1.the south profile of the cut the ATC foundation was consistent as to placement and size of brick ($42 \times 22 \times 15$ cm.). It was found to have been built *entirely above* the sloping limestone ramp, and the lie of its brick courses conforms to the angle of declension of the ramp. The shaving down of the profile, moreover, added significantly to the evidence: bricks of the ATC were found to rest *upon* the limestone ramp, and never beneath it (Pl. 24).

A2the ramp's highest point on the east part of the original stratification a pit 3.5 meters wide remained in place above the ramp. Of the 30 odd diagnostics

recovered from the loci therein all were of the late Third Intermediate – Saite horizon.

At certain points along the ramp lighter-colored bricks of the same dimensions as the black bricks of the ATC were found to be resting upon the ramp. Since they are also in evidence on the north side of the aperture, it would seem that they had constituted a packing within the aperture after the ramp had served its purpose and ceased to be in use. The fact that this packing was introduced at precisely this point argues that the aperture is not haphazard or modern, but marks the location of an ancient postern gate which was once, at a higher level, supported by the packing.

The brickwork found in profile under the ramp was of a wholly different size and texture from the black bricks of the ATC above. Here had once stood the foundational packing of light-colored alluvial bricks of an average dimension of $30 \times 16 \times 10$ cm. While its eastern face was flush with that of the later ATC, it was much narrower, being only 9.25 meters in width. On the north side of the aperture this earlier foundation continues north, encased, widened and heightened by the black bricks of the ATC.

The conclusions are obvious. Prior to the construction work of Amasis some kind of court supported on the east by a foundation nearly 10 meters wide had extended over the area later to be occupied by the naos court. Through this massif the Saite architects cut out, on the eastern side, a section c. 4-5 meters wide, shaving it into a ramp sloping from east to west, down which from the east they introduced the limestone foundation blocks of the naos court.³⁶ When the naoi were in position a thick fill of black bricks was laid over the ramp and around the south-eastern corner, with a postern gate providing access from the east. Then the ATC wall arose upon this foundation.

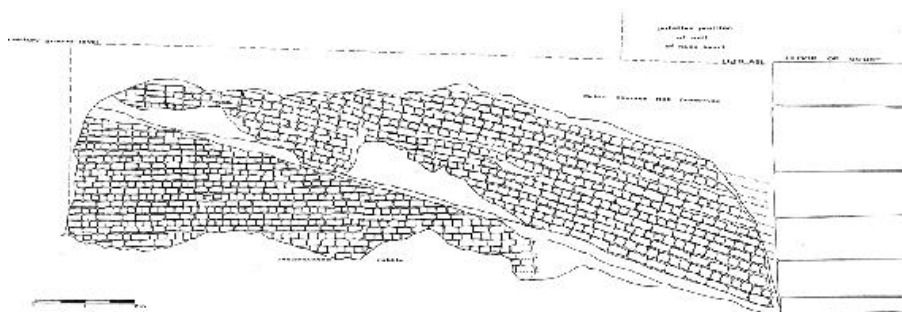


FIG. 8. Section through aperture, east side of naos court, facing south. The immense foundational mass of black brick (*temp.* Amasis) lies over the sloping ramp down which the limestone blocks of the foundation of the naos court were dragged. The ramp has cut into an earlier wall, presumably enclosing the space later occupied by the court, but in the absence of stratification it is impossible to date. The outer mud-brick wall of the naos court which here, on the east side, rose above this brick massif is now gone, and its thickness and exact alignment cannot be ascertained.

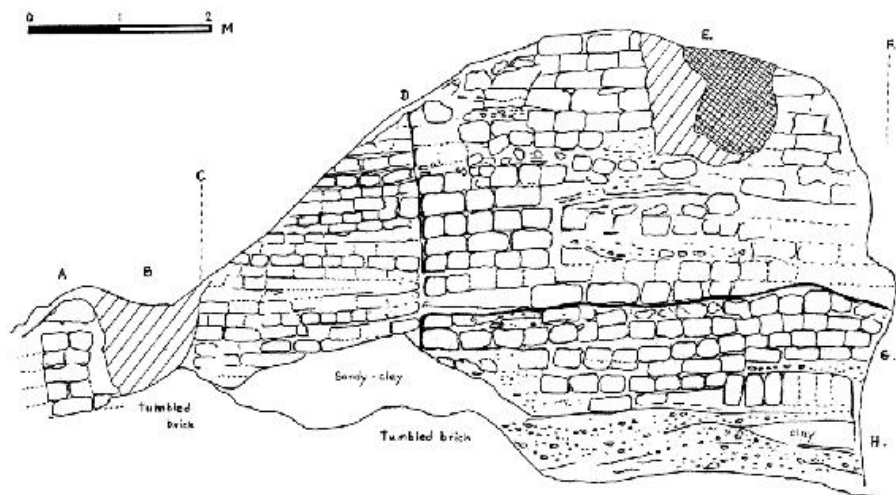


FIG. 9. Section through aperture, east of naos court, facing north. A: inner face of foundations of naos court; B: robbed out installation; C–D packing of black bricks; D–F: width of east wall of naos court; E: robbers’ pit; G earlier temple wall; H: unremoved detritus.

THE SOUTHERN APPROACH TO THE NAOS COURT

The wall system on the south side of the naos court presents its own problems. In the plan published in the NYU report in 1967³⁷ the south side of the court is flanked by a mud-brick platform, a sort of “cat-walk” about 14 meters wide, and presumably at the height of the present surface. This would appear to be correct, although the mud-brick surface in question probably served for consolidation rather than perambulation. In the excavation of units AS-A and B in 2003 (abutting the exterior, southern face of the naos court, east of the axis) the mud-brick surface assumed the aspect of a “capping” one brick thick, conforming to the configuration of the Middle Kingdom domestic chambers beneath. Continued around the south-east corner this “capping” transformed itself into the deep foundation-massif described above.

In 2001 we laid in unit AR-A, 8 × 7 meters, abutting the southern extension of the ATC, its western baulk being c. 80 cm. west of a line extending through the western face of the standing naos (Fig. 1 [L]; Pl. 26). In the following season the unit was extended 2 meters on the west and 2 meters on the east, increasing its width to 12 meters, thus exactly co-extensive with the space indicated as a gap in the “capping” in the NYU plan. In Field AR the ground undulates considerably, but at a maximum depth of c. 1.20 meters below the level of the flanking “capping” a floor of brick was unearthed (10.70 m. a.s.l.), thus

considerably lower than surface (Pl. 26). Its component bricks measured $45 \times 23 \times 12$ cm. The surface showed no signs of the wear one might have expected from the passage of feet. The presence of numerous pieces of limestone, many with smooth, worked faces, in the stria overlying this pavement (see section in Fig. 10) makes it tempting to conclude that the bricks formed a soubassement for an overlying installation of stone. Two lateral retaining walls of brick “contained” this sunken foundation and its superimposed stone installation on east and west. The “capping” of brick did not proceed west of AR-A, nor along the west side of the temple.

Two considerations proved that the brick soubassement and the (now lost) limestone superimposed installation were contemporary with the renovations of Amasis. First, the brick pavement was not bonded with the outer (southern) face of the ATC, which at this point shows brick sizes of $39 \times 19 \times 12$ cm. This outer face proved in fact to be the preserved “skin” of an earlier wall, which we later found to be bonded with domestic walls of 12th Dynasty date in AS-A and B. Second, a rectangular depression in the pavement, measuring 4.00×1.10 meters and descending to a depth of 37 cm., was laid out along the axis of the naos court. This was probably intended as an emplacement for a granite threshold block, but it is the symmetry of its placement that is telling. For it suggests that here on the south side of the temple there was an axial *entryway*, accomodating those wishing to enter from this direction. The foundations of AR-A would thus have supported some sort of monumental approach. In this connexion it should not be forgotten that it is in the great triangular expanse of terrain to the south of the temple (Field AZ) that we have definite evidence of domestic occupation from the Saite period and later.³⁸

In the debris-fill of loci 7–10³⁹ of AR-A I, a diorite statue of Philip Arrhidaeus was uncovered (pl. 25).⁴⁰ The figure of the king is shown kneeling and proffering an offering table, clad in a pleated kilt and wearing a nemes-headress. Both head and offering table had been knocked off in antiquity and are now missing. The dimensions are as follows: overall height 78 cm (original height perhaps 1.10 to 1.25 cm); knee to sole of foot 50 cm.; width of back-pillar 14.8 cm; length of surviving part of text on back-pillar 70 cm. The text (Fig. 11–12) reads “the perfect god, Lord of the Two Lands, *stp.n rꜥ mry-’Imn*, son of Re, possessed of diadems, *P-h-rw-p-w-s*, [beloved] of the living ram, Lord of Djedet.” The spelling of the nomen corresponds exactly to the spelling of the name elsewhere in the Delta,⁴¹ and must have reflected a traditional northern orthography, honoring the aspiration,⁴² in contrast to the Thebaid.⁴³

That a statue of Philip Arrhidaeus once stood in the temple at

The decline and final extinction of the cults of the Mendesian deities seem to follow the ecological and political history of the city itself. The restoration work of Ptolemy II presaged a glorious renewal; but the halcyon days did not extend beyond the reign of Ptolemy IV.⁴⁹ Thereafter a decline set in, reflected especially in the gradual abandonment of the eastern harbor. By the end of the first century B.C. this urban life-line had silted up, and the salt flats which replaced it were used for burials and non-Egyptian cult practices.

It is curious that, in spite of the steady decline of the city, “Mendesian” and “of Mendes” should have continued to be an identifying qualifier well past 205 B.C. A Mendesian perfume industry is attested until Roman times,⁵⁰ and a number of authors from late Ptolemaic or the early Roman period hail from the city. Among the latter were Bolos of Mendes, a shadowy figure associated with the cult of Ptah and responsible for some sort of disquisition on religion;⁵¹ Ptolemy of Mendes, contemporary of Augustus, who wrote a history of Egypt;⁵² Thrasyllus of Mendes, writer on natural history;⁵³ and Asklepiades of Mendes who wrote a history of Egypt in 60 books.⁵⁴

last known priests securely dated held office apparently under Augustus.⁵⁵ He continues to bear the traditional titles of the Egyptian priesthood. The onomasticon of the local population during the time of Augustus continues similarly to reflect a traditional devotion to the gods of the town: Bienchis (*b3 enb*, “the living ram”), Harpokrates, Panthouotes (“He-of-the-[divine]-statues”), Petemendes, Psenobastis.⁵⁶ But by the third quarter of the first century A.D., to judge by the numismatic evidence, Roman legionaries were bivouacking in front of the temple.⁵⁷ Evidence from a century later provides a still more striking contrast. In texts from the time immediately following the revolt of the *bukoloi*, i.e. after c. 167 A.D., the onomasticon has been wiped clean of vestiges of the ancient cult, and the center of civic activity has long since gravitated to Thmuis.⁵⁸

If the cult of Ba-neb-djed had ceased to be celebrated in his traditional haunts, at least at an official level, the temple structure continued to be used. This is abundantly proven by the ceramic and numismatic evidence in the destruction debris from the temple proper: pottery ranges from the 2nd to the 7th Century A.D. It is clear from our investigation of the hypogeum of the sacred rams (Fig. 13)⁵⁹ that certain cubicles were re-used in Roman times as domiciles. Such “recycling” of the constructional components of ancient sites is well known from the early Christian era. The “Naked Philosophers” (Γυμνοσοφισταί) whom Apollonius encountered lived on an ancient tell in individual compartments, which it is tempting to identify as abandoned tombs.⁶⁰ The “flight” from society exemplified by the experience of early Christian anchorites, as well as the similar peregrinations of earlier pagans, led often to abandoned cloisters and necropoleis.⁶¹

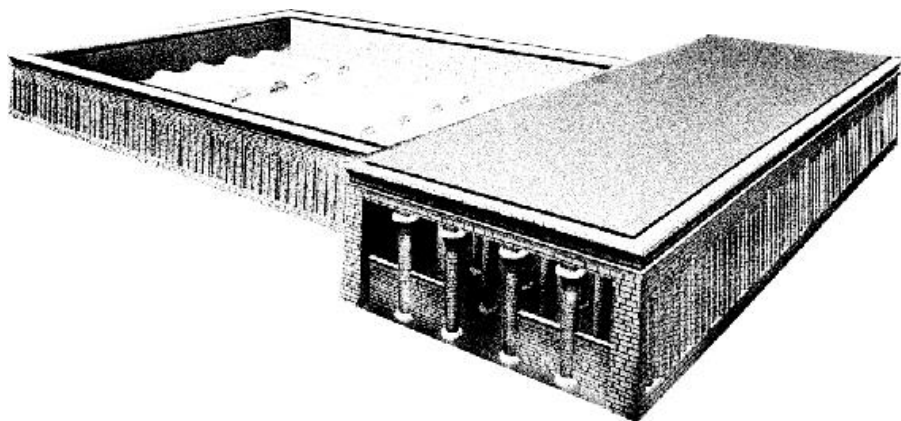


FIG. 13. Hypothetical reconstruction of the Ram-hypogeum (I), west of the main temple; possibly to be identified with the “Mansion of the Rams”.

One of the latest deposits at the site is unit AR-A in which the statue of Philip was found. The character of the overburden suggests a dump, and the component diagnostics point to the late Roman period for its deposition. The pottery includes Egyptian A ware, Roman amphorae and cooking pots and jars with red “depinto” on the shoulder, datable to the 7th Century A.D. (See Fig. 14 and Professor de Rodrigo’s report below). Roman glass was also in evidence. Loci towards the western side of the unit sometimes yielded solely Saite forms unmixed with later periods. These loci were not contiguous, but nonetheless discreet, being interspersed among others in which only Roman appeared. This must mean that the material of the dump at the time of its deposit was being brought from “pristine” locations which had not been mixed. It is probable that the overburden in AR-A represents a late Roman clean-up of the naos court which, as temple service petered out, became increasingly encumbered with detritus. Perhaps in the process of turning the temple into a place of Christian worship – an incised cross on a block in AK-A Ext. shows that it was so used⁶² – the cleaners dug out the refuse and then penetrated into deposits contemporary with the construction of the naos court.

The circumstances under which the abandoned temple of Ba-neb-djed was physically dismantled cannot be dated or described. When Tourtehot visited Tel er-Rub’a in 1730 the state of the ruins appeared much as they do today: walls, gates, pylons and three naoi had been completely demolished.⁶³ When, however, Al-Kalkashandi wrote in the Mamluk period⁶⁴ the walls and ceilings of some rooms were apparently still standing. The “doorways made from a single piece of granite nearly 10 cubits high, standing on a foundation also of granite” sound suspiciously like the naoi; but whether the plural indicates that the writer saw all four standing, or merely extrapolated from a single, surviving naos, must remain a moot point for the time being. A believable element in Al-Kalkashandi’s description is the species of “gate-house” of baked brick and cement which he saw above the door of the pylon, a common feature of pagan structures reused in Roman times. This suggests that the front pylon of Ramesside times survived into the Middle Ages. Now kilns intended for the burning of limestone from the ruins are in evidence from the early Roman period on; the great arc they describe runs from north-east of the temple around the south-east angle towards the south, thus positioned to prevent smoke from wafting into a still-functioning shrine.⁶⁵ But since those who pillaged the temple were clearly looking for a far greater source of lime, one looks for a period of heavy construction in the neighborhood to account for this activity. It is tempting to consider the founding of Mansura in 1221 A.D. and its subsequent expansion as the occasion for the destruction.

FIG. 14:1

- A**mphora. Fine red (10 R 5/8) silt; Nile B 1; well-fired; wet-smoothed.
Casserole. Light red (2.5 YR 6/8) silt; Nile B 1; wet-smoothed.
Amphora. Very fine, very pale brown (10 YR 8/4) marl; M-1; well-fired, hard; wet-smoothed.
Amphora. Fine, very pale brown (10 YR 8/4) marl; M-2; well-fired, hard; wet-smoothed.
Jar. Light red (2.5 YR 6/6) silt; Nile B 1.
Jar. Light red (2.5 YR 6/6) silt; Nile B 1; well-fired, hard; self-slipped.
Bowl. Fine light red (2.5 YR 6/8) silty-marl(?); well-fired (fast wheel); hard, self-slipped.
Mortarium. Light red (2.5 YR 6/8) silt; Nile B 1; self-slipped.
Bowl. Fine reddish-yellow (5 YR 6/6) silt, limestone inclusions(?); well-fired (fast wheel), hard; interior black.
1Amphora. Very pale brown (10 YR 8/4) marl; M - 3; well-fired, hard; wet-smoothed.
1Jar. Fine, very pale brown (10 YR 8/4) marl; M - 1.
12. and **13.** Jar. Fine, very pale brown (10 YR 8/4) silt; Nile A; well-fired, hard; layer of clay smeared over surface before firing.
1Aar. Reddish-yellow (7.5 YR 7/6) silt; Nile B 1; well-fired, hard.
1Bowl. Fine, reddish-yellow (7.5 YR 7/6) silt; Nile B 1; well-fired.
1Bowl. Reddish-yellow (7.5 YR 7/6) silt; Nile B 2; exterior white slip; interior black.
1Ring base. Light red (2.5 YR 6/8) silt; Nile B 1; fast wheel.
1Amphora spike. Reddish-brown (2.5 YR 4/4) silt; Nile B 1; fast wheel.
1Bowl. Reddish-yellow (5 YR 6/6) silt; Nile B 1; well-fired, hard.

FIG. 14:2

- and 4.** Amphora. Fine, very pale brown (10 YR 8/4) marl; M 2; well-fired, hard.
Jar. Fine, light red (2.5 YR 6/8) silty-marl(?); M 3.
Jar. Reddish (10 R 5/8) silt; Nile B 1; hard; wet-smoothed.
Gollared jar. Reddish-yellow (7.5 YR 7/6) silt; Nile B 2; red slip (5 YR 5/8).
Jar. Reddish brown (2.5 YR 4/4) silt; some limestone inclusions (?); wet-smoothed.
Inverting bowl. Reddish yellow (7.5 YR 7/6) silt; Nile B 1; self-slipped; interior burnished.
Giza"-bowl. Reddish yellow (7.5 YR 7/6), silt; Nile B 1; well-fired, hard; exterior red (10 R 5/8) burnished.
Bowl. Light red (2.5 YR 6/8) silt; sand inclusions; well-fired, hard; interior, cream slip; exterior wet smoothed.
1Did. Reddish brown (2.5 YR 4/4) silt; Nile B 1; well-fired; thick reddish yellow (5 YR 6/6) slip.
1Ring base. Fine cream-green marl; M 2; wet-smoothed.

FIG. 14:3 (upper)

- 1.** and **3.** Bowl and jar. Light red (2.5 YR 6/8) and yellowish brown (10 YR 5/6) respectively; coarse silt; Nile C.
2. Bowl. Light red (2.5 YR 6/6) silt; Nile B 1; red slip (10 R 5/8).

4. Bowl. Light red (2.5 YR 6/6) silt; Nile B 2.
5. Bowl. Reddish yellow (7.5 YR 7/6) silt; Nile B 1; red slip (10 R 5/8).

FIG. 14:3 (lower)

- Bowl.** Very fine light red (10 R 6/3) silt; Nile A; well-fired, hard; incised decoration beneath rim.
- Amphora.** Reddish brown (2.5 YR 4/4) silt; Nile B 1; sand inclusions; wet smoothed.
- Jar.** Very pale brown (10 YR 8/4) silt; sand and limestone inclusions; Nile D; layer of clay smeared on surface before firing.
- Bowl.** Reddish yellow (7.5 YR 7/6) silt; sand inclusions; Nile B 1; reddish-yellow wash (5 YR 6/6).
- Gasserole.** Light red (2.5 YR 6/8) coarse silt; Nile C.

FIG. 14:4

- Jar.** Fine light red (2.5 YR 6/6) silt; Nile A; well-fired, hard; exterior thick cream slip.
- Amphora.** Fine, very pale brown (10 YR 8/4) marl; M 2; well-fired hard.
- Jar.** Fine, light red (2.5 YR 6/8) silty-marl; well-fired, hard; exterior white slip.
- Jar.** Reddish yellow (5 YR 6/6) silt; Nile B 1; well-fired, hard; plaster adhering to exterior surface.
- Jar.** Light red (2.5 YR 6/8) silt; Nile C.
- Jar.** Reddish yellow (5 YR 6/6) silt; Nile B 1; well-fired, hard; layer of clay smeared on surface before firing.
- Jar.** Fine, very pale brown (10 YR 8/4) marl; M 1; well-fired, hard; thick cream slip.
- Wide bowl.** Reddish yellow (7.5 YR 7/6) silt; Nile B 1; light red slip (10 R 6/8).
- Amphora spike.** Yellowish red (5 YR 5/8) silt; Nile B 1; hard; exterior yellowish brown (10 YR 5/6), interior black.
- Bowl.** Reddish yellow (7.5 YR 7/6) silt; Nile B 1; red slip (10 R 5/8).
11. and 14. Wide bowl and ring base. Very fine, light red (2.5 YR 6/8) marl; M 1; well-fired, hard; burnished.
- Bowl.** Reddish yellow (7.5 YR 7/6) silt; Nile B 1; dark brown slip (7.5 YR 3/4).
- Bowl.** Light red (2.5 YR 6/8) silt; Nile B 1; wet smoothed.

FIG. 14:5

- Amphora.** Strong brown (7.5 YR 5/6) silt; well-fired hard; limestone inclusions.
- 2.– 5. Jars. Very pale brown (10 YR 8/4) marl; ranging from M 1 to M 2; well-fired; smeared with a thin uneven layer of clay before firing.
- Gasserole.** Hard red (10 R 5/8) silt; Nile B 1.
- Bowl.** Fine, reddish yellow (7.5 YR 7/6) silt; Nile B 1; well-fired, hard; red slip (10 R 5/8).
- Sup.** Light red (2.5 YR 6/8) micaceous silt; wet-smoothed.
- Bowl.** Reddish yellow (7.5 YR 7/6) silt; Nile B 1.
- Bowl.** Fine, reddish yellow (5 YR 6/6) silt; well-fired, hard; wet-smoothed.
- Bowl.** Fine, light red (2.5 YR 6/8) marl; M 1; well-fired, hard; wet-smoothed; incised decoration exterior.
- Bowl.** Fine, light red (2.5 YR 6/8) silt; Nile A; well-fired, hard; wet-smoothed.

13. Jug base. Fine, red (10 R 5/8) silt; Nile A; well-fired, hard; wet-smoothed.

FIG. 14:6

Jar. Reddish yellow (7.5 YR 7/6) silt; Nile B 1; wet-smoothed.

Bowl. Yellowish red (5 YR 5/8) silt; Nile B 1; wet-smoothed.

Bowl. Yellowish brown (10 YR 5/6) silt; Nile B 1; wet-smoothed.

Bowl. Reddish yellow (7.5 YR 7/6) silt; Nile B 1; light red slip (10 R 6/8).

5. and 13. Platters(?). Yellowish brown (10 YR 5/6) coarse silt; Nile C; wet-smoothed.

Amphora. Reddish yellow (7.5 YR 7/6) silt; Nile B 1; hard.

Amphora. Reddish brown (2.5 YR 4/4) silt; Nile B 1; fast wheel; well-fired, hard; exterior reddish yellow wash (5 YR 6/6).

Bowl. Reddish brown (2.5 YR 4/4) silt; Nile B 1; interior light red (10 R 6/8), diagonally burnished.

Bowl. Reddish yellow (7.5 YR 7/6) silt; Nile B 1; light red slip (10 R 6/8); wet-smoothed.

1Did. Light red (2.5 YR 6/8) silt; Nile B 2; wet-smoothed.

1Bowl. Reddish brown (2.5 YR 4/4) silt; Nile B 1; wet-smoothed.

1Jar. Yellowish red (5 YR 5/8) silt; Nile B 1; wet-smoothed.

1Large bowl. Reddish brown (2.5 YR 4/4) silt; Nile B 1; red slip (10 R 5/8).

Fig. 14:7

1. and 2. Jars; 3. and 4. Cups. Light red (2.5 YR 6/6) silt; Nile B 1; wet-smoothed.

5. Bowl. Light red (2.5 YR 6/6) silt; Nile B 1; wet-smoothed.

6. Bowl. Reddish yellow (5 YR 6/6) silt; Nile B 1; well-fired, hard.

7. and 8. Jars. Reddish yellow (5 YR 6/6) silt; Nile B 1.

9.-12. Jars. Yellowish brown (10 YR 5/6) coarse silt; Nile C.

13. Bowl. Reddish yellow (5 YR 6/6) silt; Nile B 1.

14. Bowl. Dark brown (7.5 YR 3/4) silt; Nile B 1; well-fired; wet-smoothed.

15. Large bowl. Light red (2.5 YR 6/8) silt; Nile B 1; well-fired, hard.

FIG. 14:8

Amphora. Light red (2.5 YR 6/8) coarse silt; Nile C.

Casserole. Light red (2.5 YR 6/8) silt; Nile B 2.

Jar. Very pale brown (10 YR 8/4) silty-marl; layer of clay smeared over exterior surface before firing.

Bowl. Light red (2.5 YR 6/8) silt; Nile B 2; wet-smoothed.

5. and 10. Bowls. Very fine, pale brown (10 YR 8/4) silt; Nile A; burnished; incised notch decoration beneath rim.

Jar. Fine, light red (2.5 YR 6/6) silt; Nile A; exterior cream slip; decoration of a horizontal band of red paint between two thin black bands.

Amphora. Very pale brown (10 YR 8/4) marl; M 2; well-fired, hard.

Amphora. Very pale brown (10 YR 8/4) micaceous marl; M 3.

Jar. Yellowish brown (10 YR 5/6) coarse silt; Nile C.

11. and 12. Wide bowls. Reddish yellow (5 YR 6/6) coarse silt; Nile B 2; wet-smoothed.

FIG. 14:9

1. Amphora. Reddish yellow (7.5 YR 7/6) marl; M 3; well-fired, wet-smoothed.

2. Jar. Light red (2.5 YR 6/8) silt; Nile B 1; red slip (10 R 5/8); exterior burnished.
- 3., 4. and 5. Jars. Light red (2.5 YR 6/8) silt; Nile B 1.
6. Jar. Black silt; Nile B 2; [baked black: a waster].
7. Jar. Red (10 R 5/8) silt; Nile B 1; well-fired, hard.
8. Jar. Light red (2.5 YR 6/6) coarse silt; Nile C.
9. Bowl. Yellowish red (5 YR 5/8) silty-marl; wet-smoothed.
10. Amphora. Fine, reddish yellow (7.5 YR 7/6) marl; M 1; well-fired, wet-smoothed.
11. and 12. Jars. Light red (2.5 YR 6/8) silt; Nile B 1; dark brown slip (7.5 YR 3/4).
13. Jar. Red (10 R 5/8) coarse silt; Nile C.
14. and 15. Open base of jars. Light red (2.5 YR 6/8) coarse silt; Nile C.

FIG. 14:10

- Casserole. Fine, reddish yellow (5 YR 6/6) silt; Nile B 1; hard; wet-smoothed.
- Amphora. Fine, very pale brown (10 YR 8/4) marl; M 1; well-fired, hard; wet-smoothed.
- Jar. Reddish yellow silt (7.5 YR 7/6) silt; Nile B 1.
- Jar. Fine, reddish yellow (7.5 YR 7/6) silt; Nile A.
- Bowl. Strong brown (7.5 YR 5/6) coarse silt; Nile C.
- Wide bowl. Reddish yellow (7.5 YR 7/6) silt; Nile B 1.
- Garnated bowl. Reddish yellow (5 YR 6/6) coarse silt; Nile C.
- Jar. Very pale brown (10 YR 8/4) marl; M 2; layer of clay crudely smeared over surface before firing.
- Bowl. Light red (2.5 YR 6/8) marl; M 2; exterior burnished.
- 1Bowl. Very fine, very pale brown (10 YR 8/4) marl; M 1; exterior burnished; band of vertical incisions beneath rim.
- 1Bowl. Fine, very pale brown (10 YR 8/4) marl; M 1; exterior burnished; black line around rim.

FIG. 14:11

- 1., 8. and 9. Jars. Light red (2.5 YR 6/6) marl, M 3; layer of clay crudely applied to exterior before firing; exterior buff.
- Casserole. Fine, red (10 R 5/8) silt; Nile B 1; well-fired.
- Bowl. Fine, light red (2.5 YR 6/6) silt; Nile B 1; wet-smoothed.
- Bowl. Yellowish red (5 YR 5/8) silt; Nile B 2; blackened by fire.
- Bowl. Fine, reddish-yellow (7.5 YR 7/6) silt; Nile B 1; wet-smoothed.
- Mortarium. Yellowish red (5 YR 5/8) silt; Nile B 1; well-fired, hard.
- Bowl. Light red (2.5 YR 6/8) silt; Nile B 1; wet-smoothed.
- 10Jar. Yellowish brown (10 YR 5/6) silt; Nile B 1; wet-smoothed.
- 1Bowl. Yellowish red (5 YR 5/8) silt; Nile B 2; wet-smoothed.
- 1Bowl. Fine, reddish yellow (7.5 YR 7/6) silt; Nile B 1; fine light red slip (10 R 6/8).
- 1Bowl. Fine, light red (2.5 YR 6/6) silt; Nile B 1; wet-smoothed.
- 1Jar. Light red (2.5 YR 6/8) silt; Nile B 1; wet-smoothed.
- 1Bowl. Light red (2.5 YR 6/8) silt; Nile B 1; light red (10 R 6/8) burnished surface; incised way decoration.
- 1Batter. Reddish yellow (7.5 YR 7/6) silt; Nile B 2; wet-smoothed.
- 1Bowl. Very fine, reddish yellow (7.5 YR 7/6) marl; M 1; wet-smoothed.

Mendes 2001

AR-A I : loci 2, 3, 5, 6, 7, 8 and 9

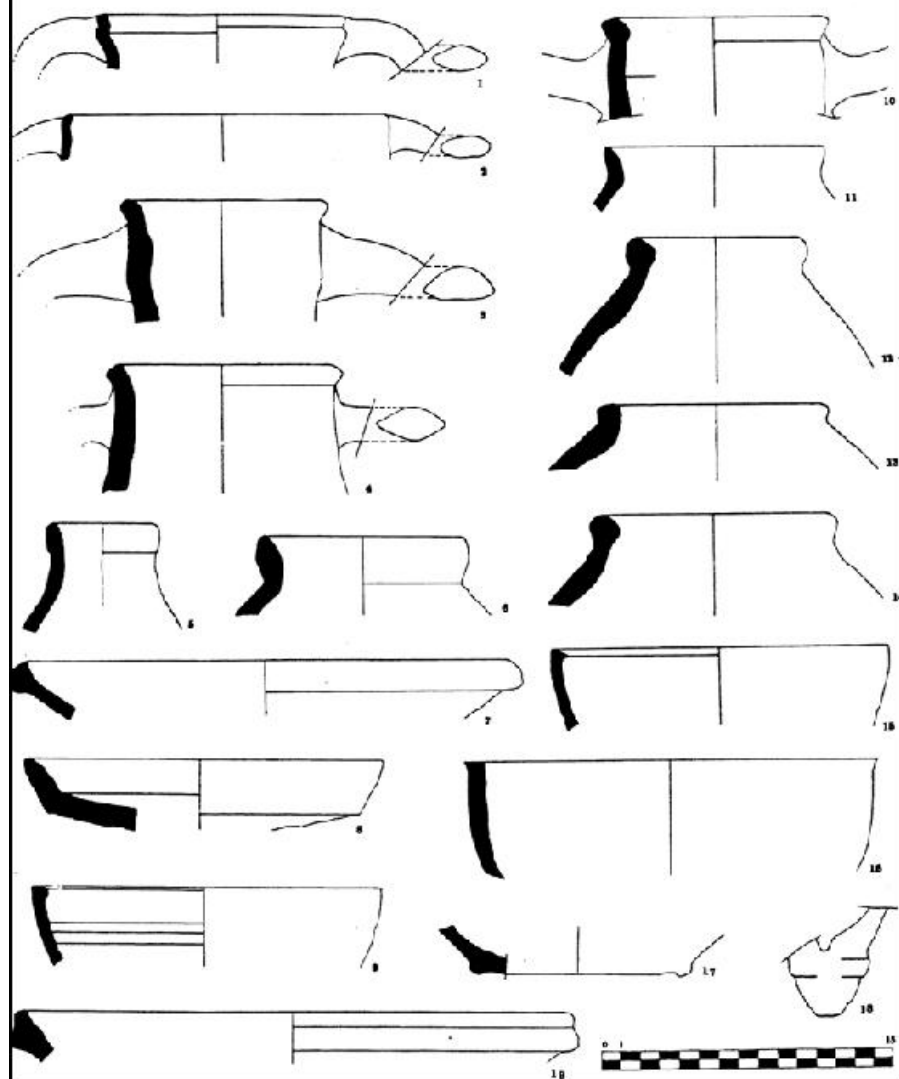


FIG. 11:1

Mendes 2001

AR-A II : loci 1, 2, 3, and 4

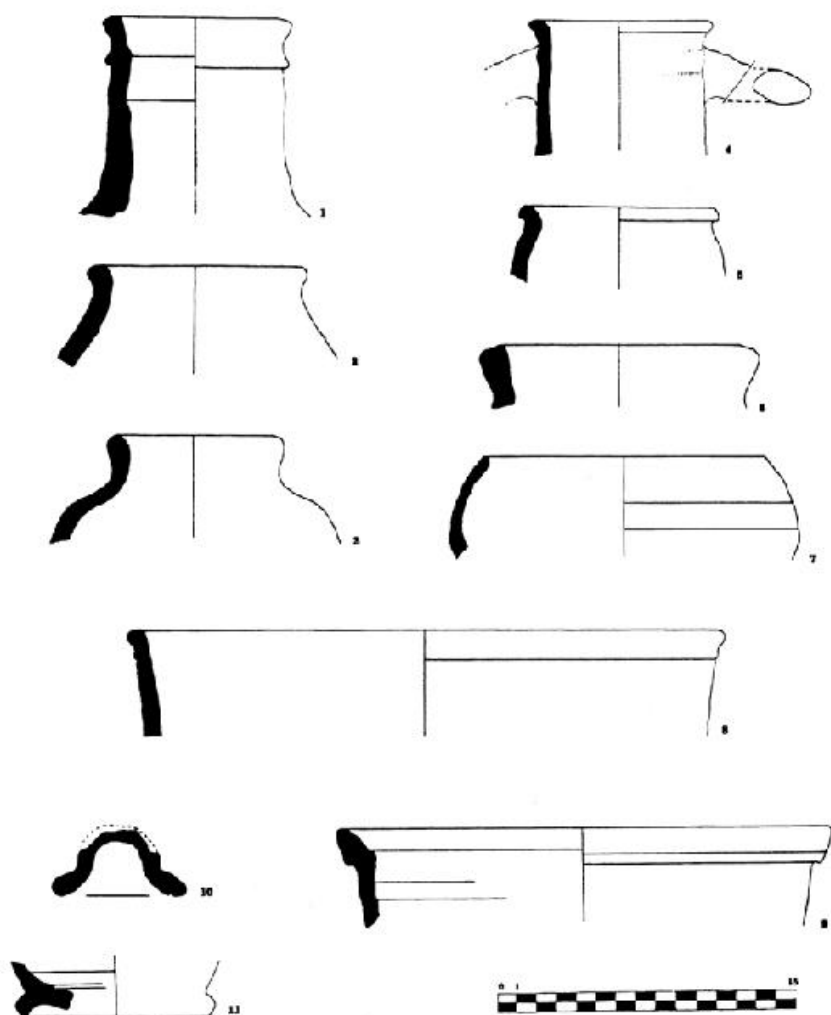


FIG. 14:1

Mendes 2001

AR-A III : locus 6

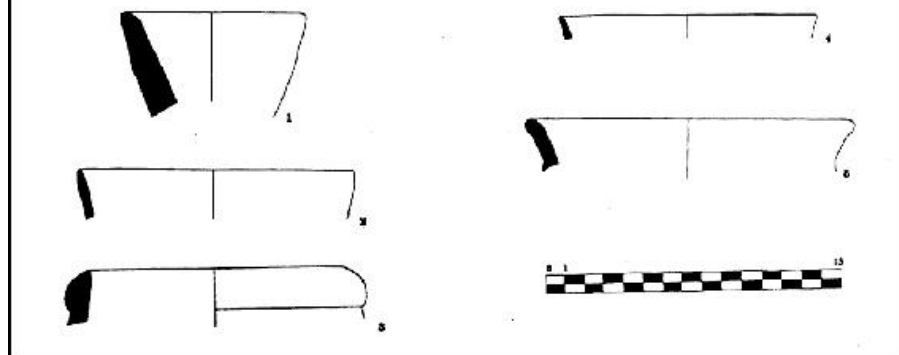


FIG. 14:2

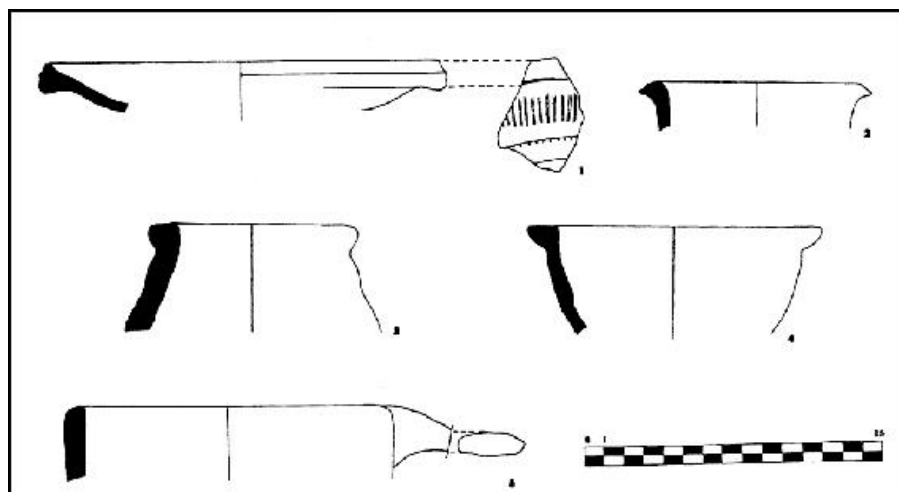


FIG. 14:3

Mendes 2001

AR-A III : locus 3

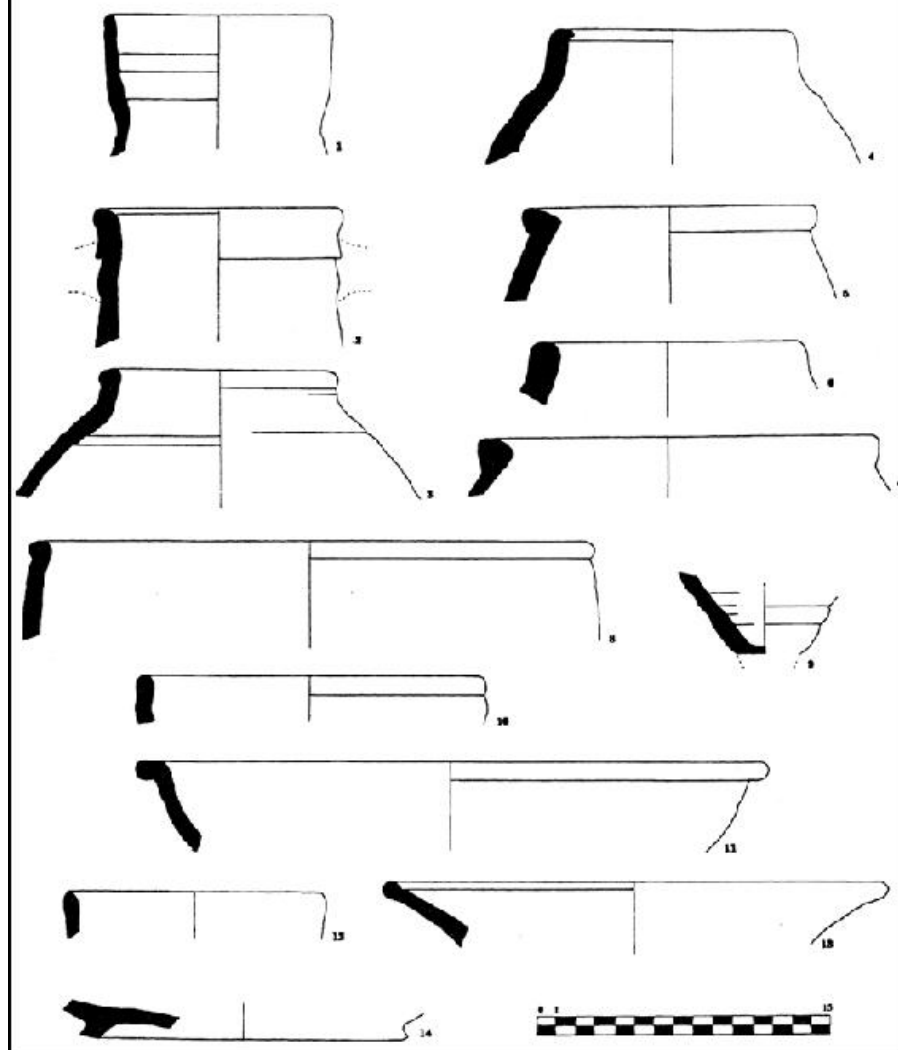


FIG. 14:4

Mendes 2001

AR-B I : loci 1, 5 and 6

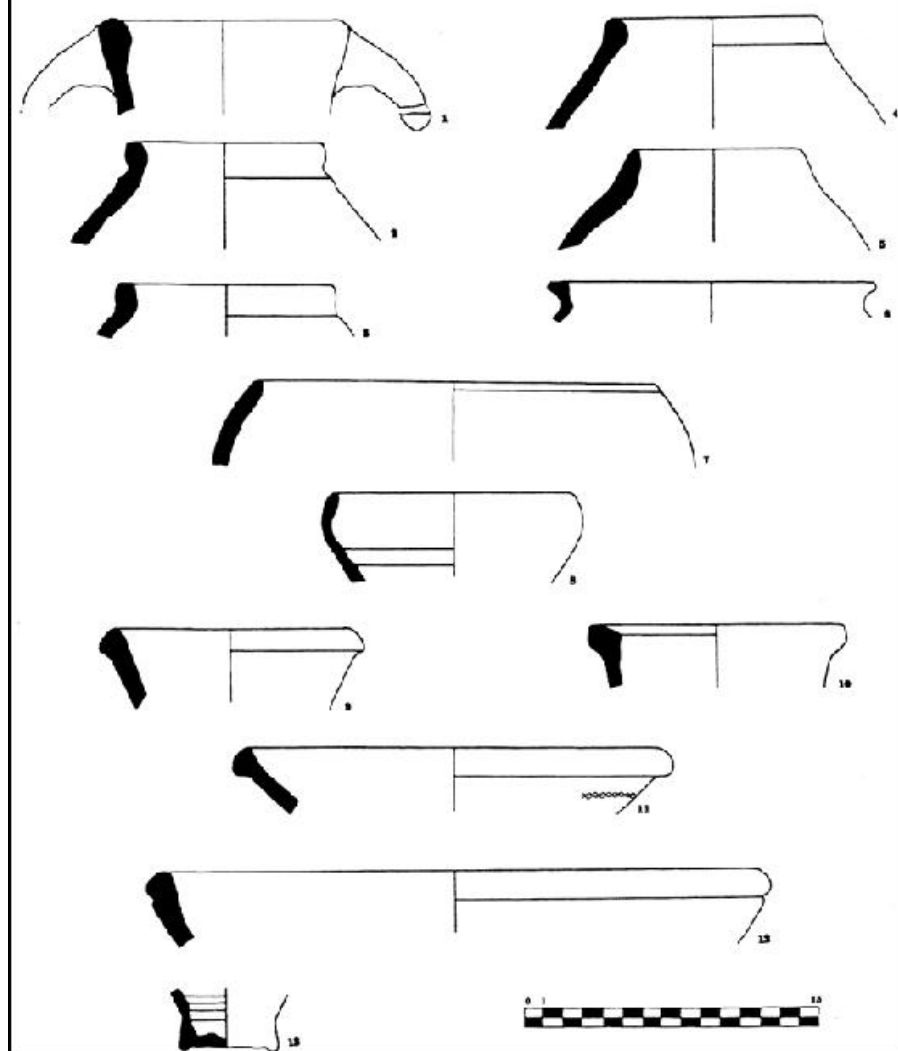


FIG. 14:5

Mendes 2001
AR-A I Ext. 1 : loci 1, 2 and 3

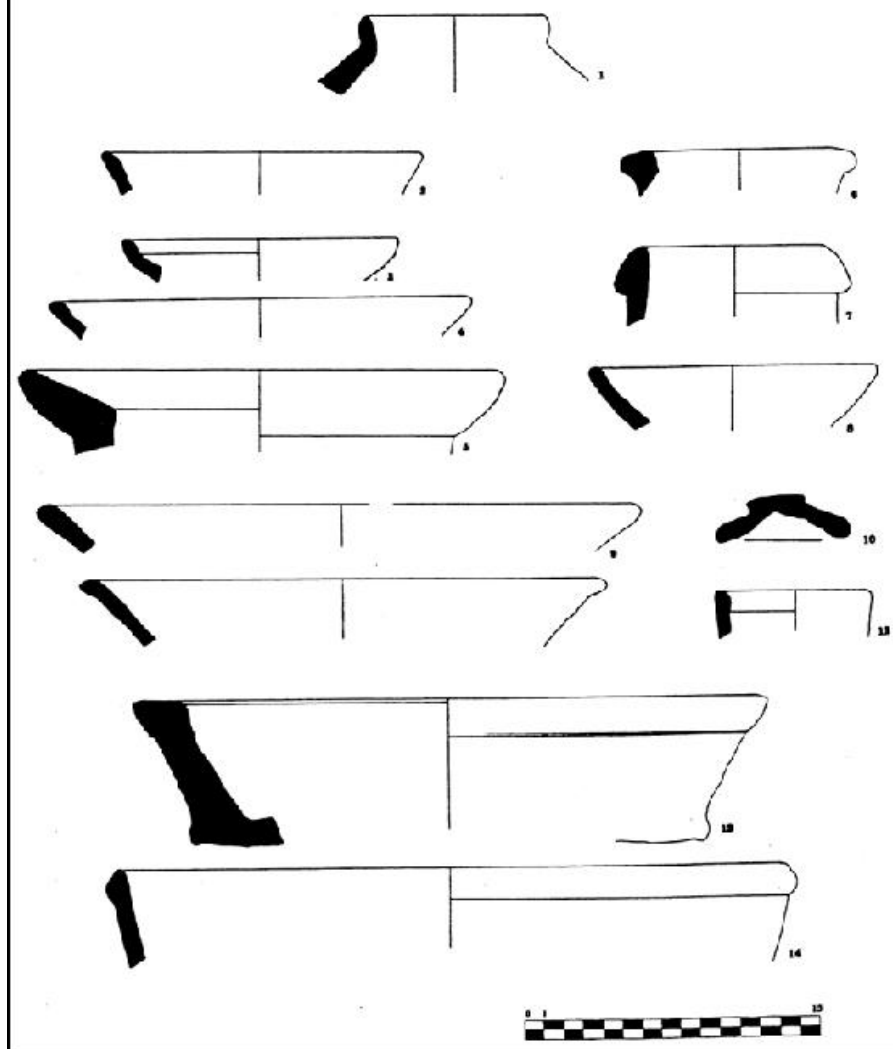


FIG. 14:6

Mendes 2001

AR-A Ext. W : loci 3a and 9

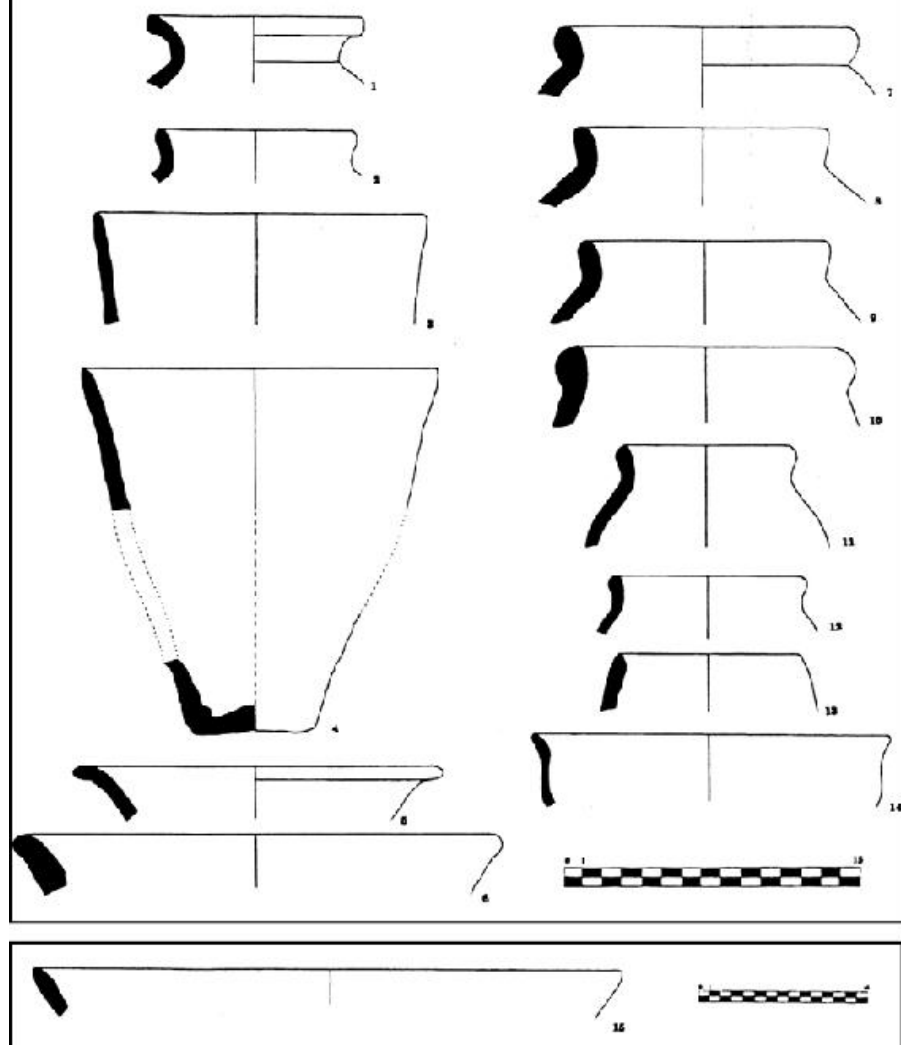


FIG. 14:7

Mendes 2001

AR-A Ext. W : loci 4a and 5

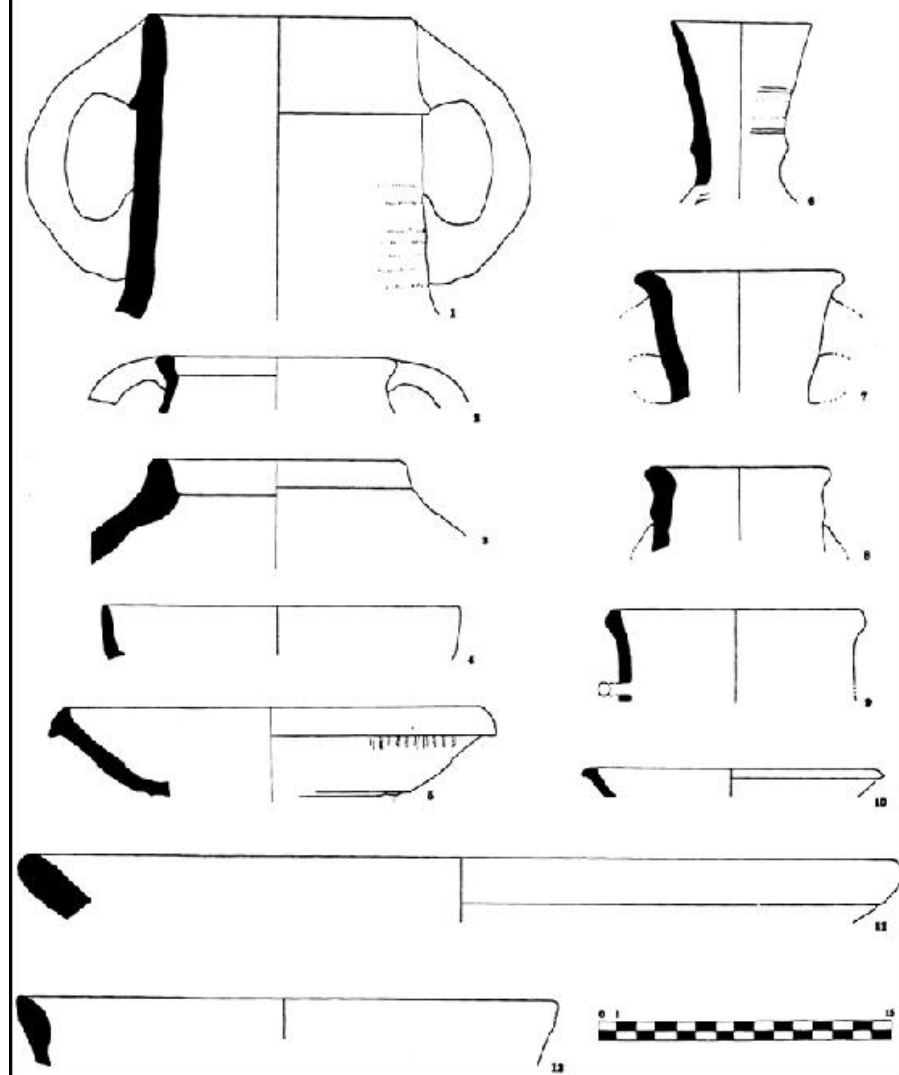


FIG. 14:8

Mendes 2001

AR-A Ext. W : loci 11 and 13

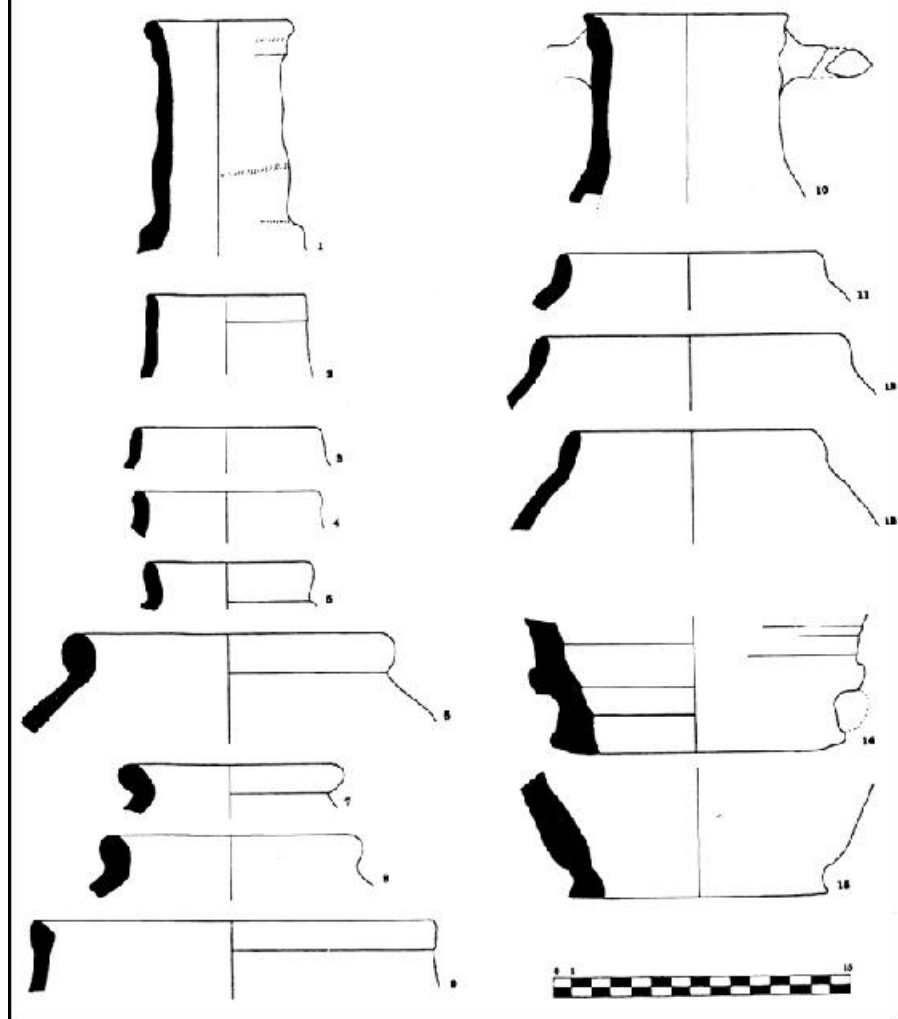


FIG. 14:9

Mendes 2001
AR-A Ext. E : loci 1, 3 and 5

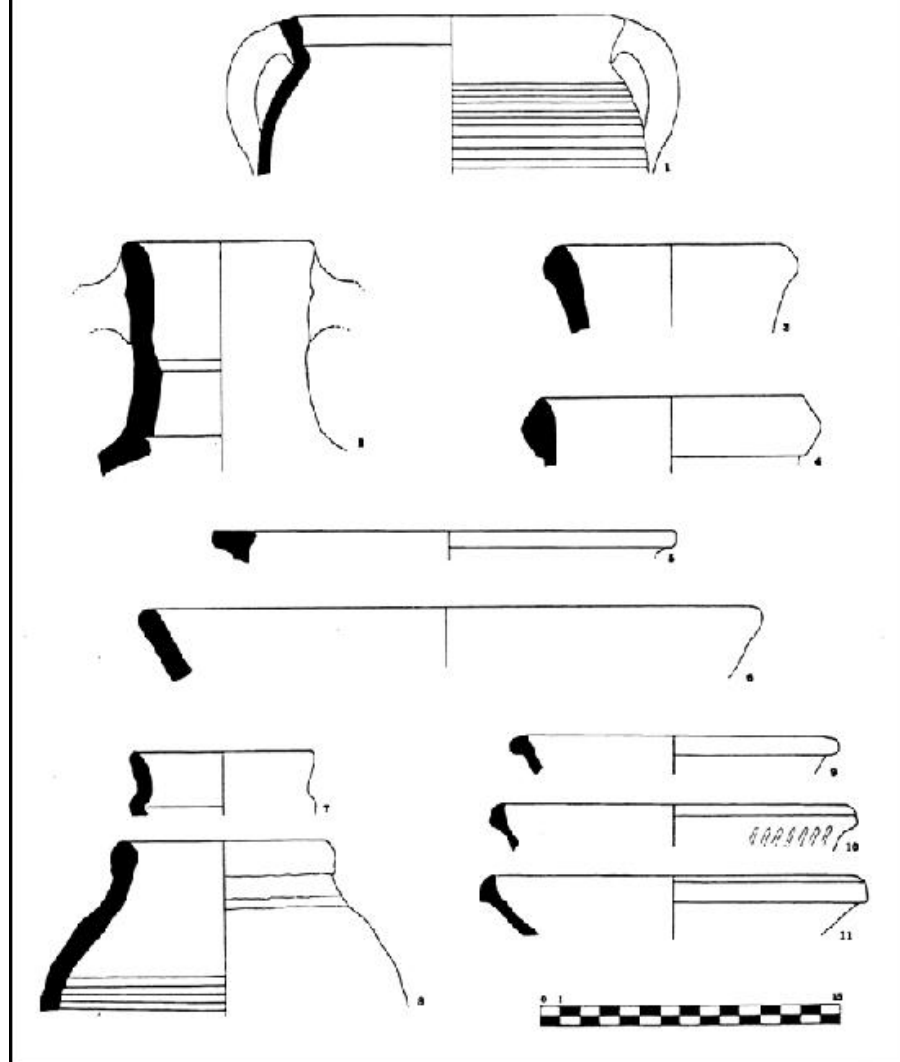


FIG. 14:10

Mendes 2001

AR-A Ext. E : loci 2, 7 and 8

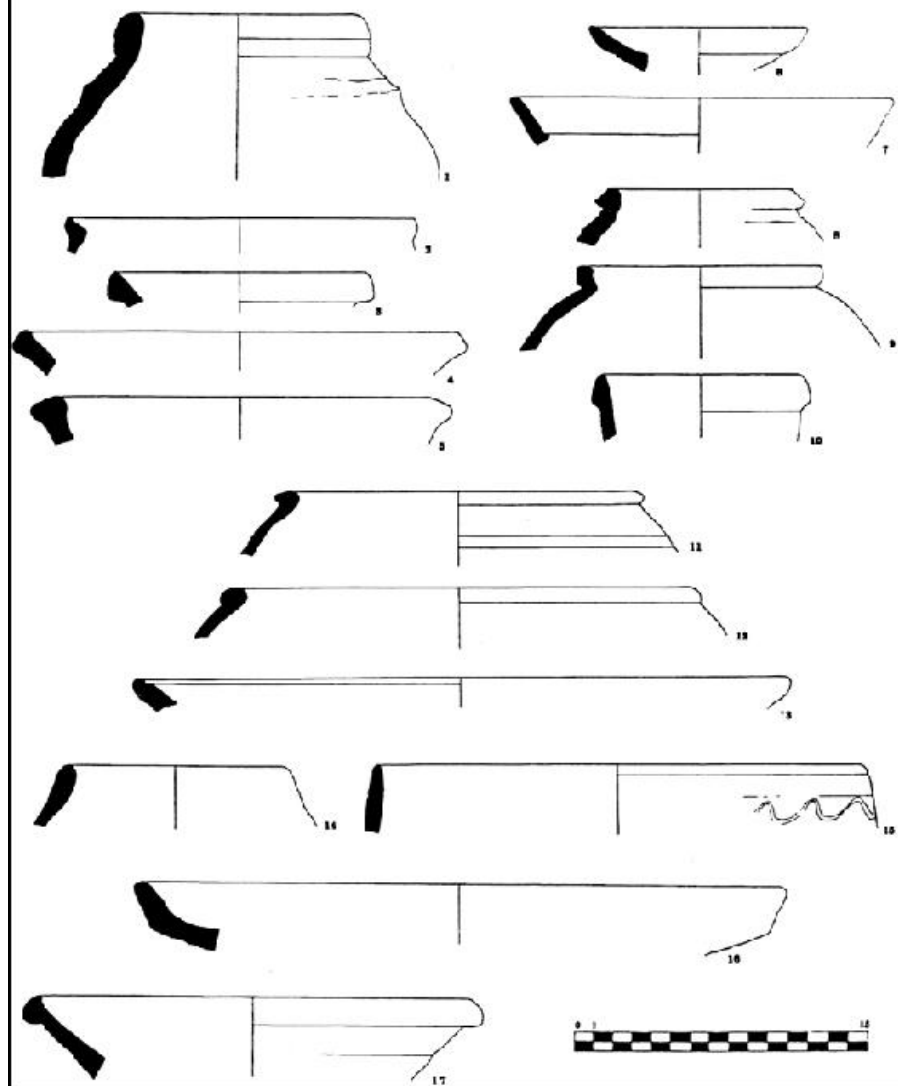


FIG. 14:11

A PRELIMINARY REPORT ON THE FOUNDATION DEPOSITS OF THE 2ND PYLON

At the outer angle of the eastern end of the second pylon, and flush with the northern face, a circular lens of pure sand approximately 1 meter in diameter was unearthed. A few centimeters beneath surface there came to light intact pottery and small faience amulets of various designs (Deposit A)⁶⁶ The location of the deposit was surprising: it had

been let into the surface earth flush with the pylon's face, as opposed to being buried in the foundation sand *under* the pylon. Expansion of the excavations towards the west, i.e. along the erstwhile face of the pylon, brought to light a second foundation deposit (Deposit B), approximately 10 meters west of the first. Like Deposit A, the second deposit was placed just below surface and flush with the pylon face.

The location of both deposits makes them unique. The carving of such shallow pits removes the necessity of the traditional practice of lining such deposits with cut mud-bricks. This would be consistent with other New Kingdom deposits not placed directly in the foundation sand, most notably those of Hatshepsut at Deir el-Bahari.⁶⁷ These, carved into the bedrock, were left unlined, while those in the sand had a lining.

Both pits were almost exactly 1 meter in diameter, and descended bowl-shaped to a depth of approximately 70 cm. Interestingly, each pit was cut in such a way as to leave a mud-brick "platform," half the depth of the pit, on one side. These platforms acted as a sort of "display" pedestal to support most of the objects of the deposit.⁶⁸ Lacking from the Mendes deposits was any stone covering placed over top of the pits. Deposit A had only a few centimeters of sand above the objects, and deposit B displayed a thin and sparse layer of limestone chips in the same position.

The contents of the deposits are unmistakably characteristic of the Ramesside period, and constitute "textbook" examples of what is to be expected from 19th Dynasty examples. Each contains several ceramic vessels, many faience amulets depicting offerings, a limestone block with incised cartouche, and (in B) a sacrificial haunch. No model tools were included.

Vessels

Only three types of vessel appeared in the deposits. Deposit A contained 6, miniature, flat-based cylindrical jars, approximately 12 cm. tall, 4 small saucers and the remnants of a damaged offering plate measuring 30 cm. in diameter. Deposit B contained the same ceramic forms, but in different quantity: 8 jars, 10 saucers and a (better-preserved) plate. No stone or alabaster vessels were included. It would appear that the pottery was the last item to be placed in the pits. While there was no uniform distribution of the objects in situ, some organization was apparent. The jars were all perched on the "pedestals" in such a manner as to conserve the maximum amount of space. The same intent can ostensibly be detected in the stacking of the small saucers, one inside the other. One wonders whether the size of pit and pedestal dictated the number of vessels to be included; or whether the pits were specifically carved to accommodate the pottery.

In any case the number of ceramic pieces is consistent with the numerical decline in pottery included in foundation deposits which is in evidence throughout the 19th Dynasty.⁶⁹

Faience Pieces

The use of models to replace real food offerings began with Thutmose IV,⁷⁰ and by the Ramesside age they are included in abundance in the foundation deposits. The Merenptah deposits at Mendes are no exception. Deposit A contained 15 faience amulets, and B 10. The predominant shape was a haunch of beef, showing the cartouche of Merenptah down the leg. Other shapes included trussed cattle, birds and the heads of cattle. The color ranges from red, through blue, black, white to green, and no color seems to be prescribed for any generic item.

The models appear to be haphazardly placed in the pits, sprinkled randomly across the other offerings. Some were found in the jars, and one was positioned beneath the bovine head before it was placed in the pit. Notably all were found face up, suggesting that a specific design was being followed.

Limestone blocks

The single most important piece of evidence in the dating of these deposits to the 19th Dynasty is the stone block inscribed with the cartouche, replacing the earlier model mud brick.⁷¹

After the 19th Dynasty the practice seems to have ended. Each of the two pits excavated this season produced a limestone block, 12 × 19 cm., obviously the centerpiece of the deposit, with a worn cartouche of Merenptah. Both were placed on the mud pedestal with inscribed face uppermost. In the case of deposit B the block was placed on top of the bovine sacrifice, after which the pottery was placed over the whole.

Real Food Offerings

Parts of a bovine sacrifice, a ubiquitous type of offering in ancient Egypt, was unearthed in Deposit B. (Deposit A contained none.) As was to be expected, it was in the form of the animal's head and one of its haunches. When sacrificed, the animal was 3.5 to 4.5 years old. The two pieces were the first to be introduced into the deposit, occupying the surface of the pedestal beneath the superimposed limestone block and pottery. Some small bones were found near the animal's leg, but not in a quantity sufficient to ensure identification. Perhaps they are avian.

Deposit A

15 faience model offerings (trussed cattle, haunch of beef with cartouche, birds, heads of cattle); varying colors (red, blue, white, black, green).

11 pottery vessels (6 jars, 4 saucers, 1 plate)

limestone block with cartouche of Merenptah.

Deposit B

10 faience model offerings (same forms and colors as in Deposit A).

19 pottery vessels (8 jars, 10 saucers, 1 plate)

limestone block with cartouche of Merenptah
head and haunch of sacrificial animal.

John Kuehne, site supervisor



PLATE 1. Section through First Pylon. Immediately west of the central axis, showing foundation sand intruded upon by the pits of Naville.

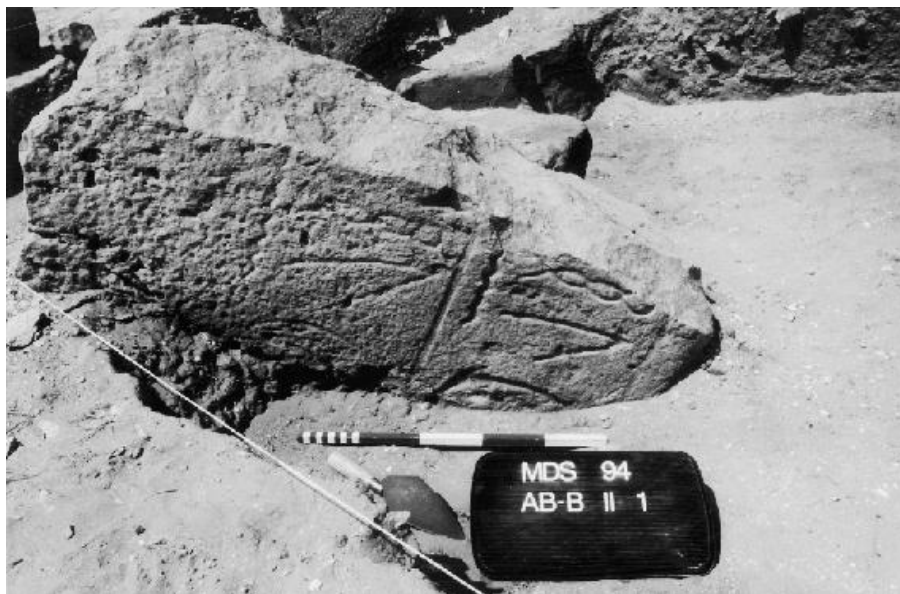


PLATE 2. Block from east massif, First Pylon, showing part of the text of Merenptah.



PLATE 3. Unit AK-AA facing south, showing the central part of the temple. The east end of the Ramesside foundation trench (of the Second Pylon[?]) appears in the middle ground, and the oval depression of the first foundation deposit in the foreground, left.



PLATE 4. Unit AK-FF facing south-west. The sand-filled foundation trench reflects the line of the wall of a gate at the east end of the Second Pylon, leading into the forecourt from the east. The entry was probably from the lower left and proceeded over a threshold (cobbled surface of limestone chips, upper right). A fallen jamb inscribed with the cartouches of Merenptah can be seen at the right.



PLATE 5. Foundation Deposit (no. 2), unit AK-OA; note the underlying sacrificial haunch.



PLATE 6. Inscribed stone from the first foundation deposit: *nb-t3wy ny-b3-R^c Mri-'Imn*.

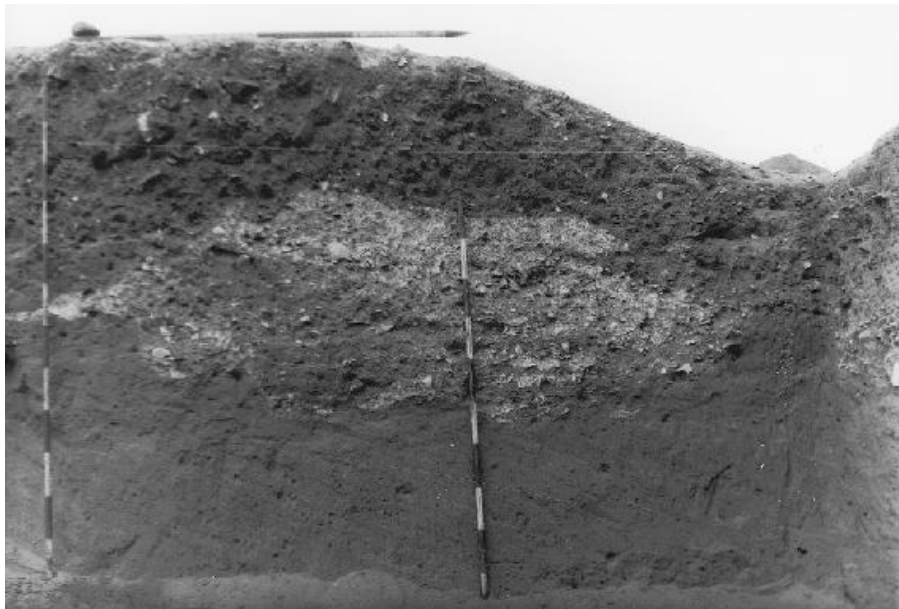


PLATE 7. Back-filled "slots" in the foundation sand of the central temple.



PLATE 8. Fragment of a steep-roofed granite naos, central temple.



PLATE 9. Fragment of limestone frieze, *hkr* above *en^h-w3s* registers; rear of central temple.



PLATE 10. Fragment of raised limestone relief, showing z3-sign; central temple, east side.

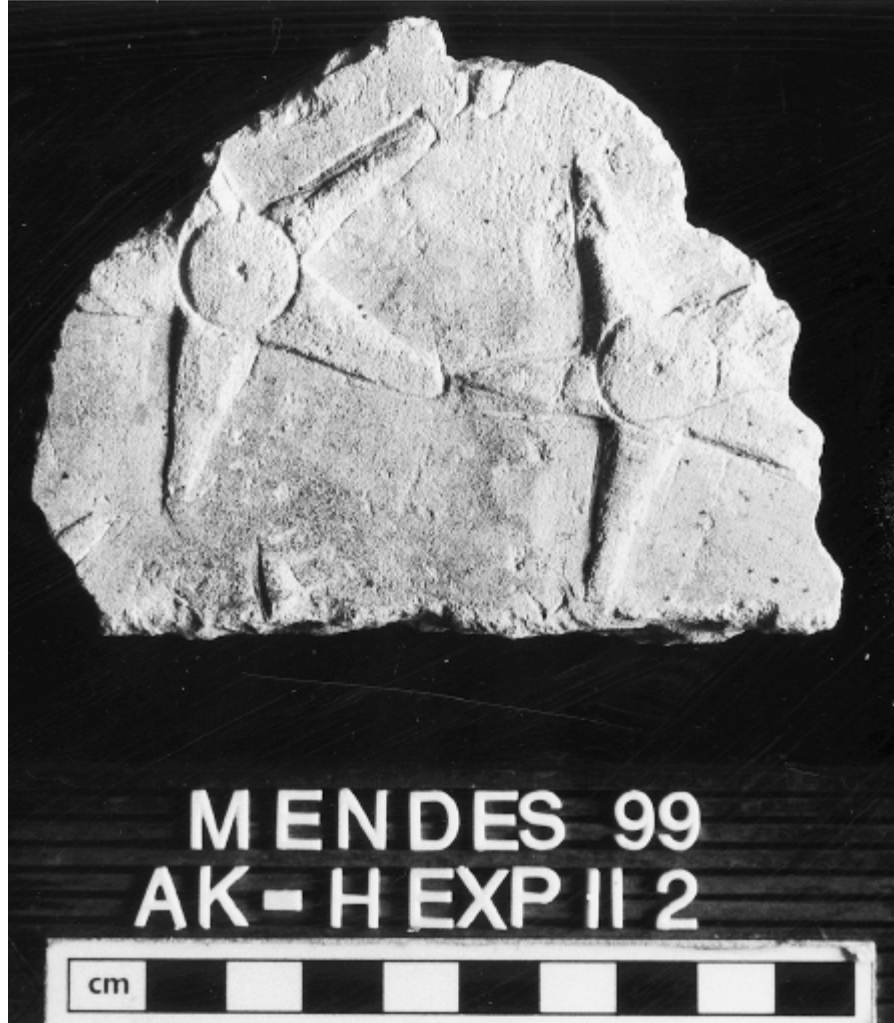


PLATE 11. Fragment of limestone ceiling block with star-pattern; rear of central temple.



PLATE 12. Block of quartzite dado showing alternating nomen and prenomen of Hakoris; Central temple. Plaster indicates sub-floor interstice.



PLATE 13. Fragment of quartzite dado showing alternating cartouches of Hakoris; central temple.

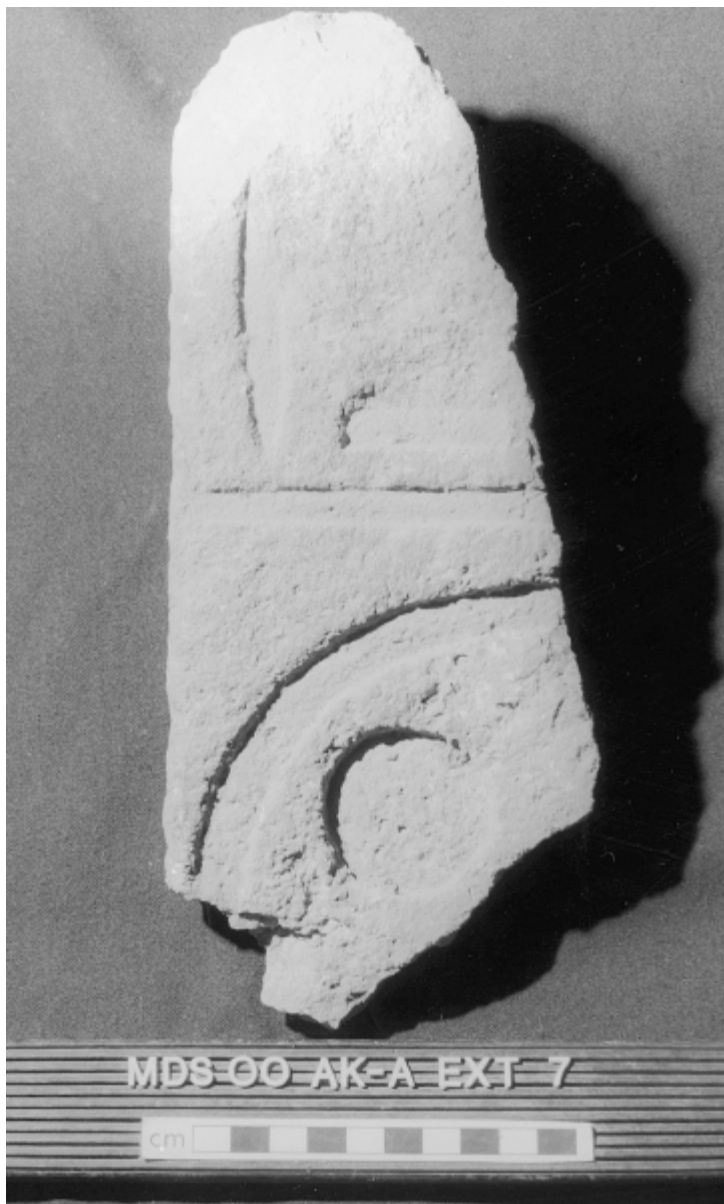


PLATE 14. Quartzite fragment with part of the Horus-name (*ꜥ3-ib*) and prenomen of Hakoris; rear of central temple, east side.

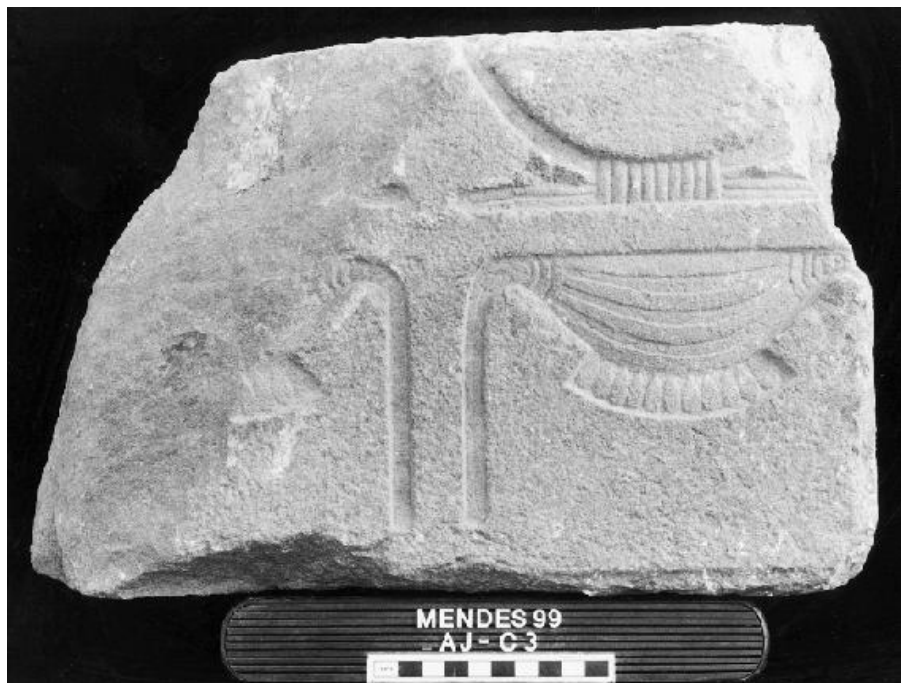


PLATE 15. Fragment of quartzite dado, showing alternative cartouches surmounting *nb*-signs; rear Of central temple, west side.



PLATE 16. Fragment of quartzite with nomen of *Hako[ris]*; central temple, east side.



PLATE 17. Fragment of quartzite with [h]tp-di-n[sw]; rear of temple, west side.



PLATE 18. Fragment of quartzite, with ʿ3-ib; rear of temple, center.



PLATE 19. Fragment of quartzite with part of offering scene; rear of temple, east side.



PLATE 20. Fragment of quartzite with border, rear of temple, east side.



PLATE 21. Fragment of quartzite with border; rear of temple, east side.

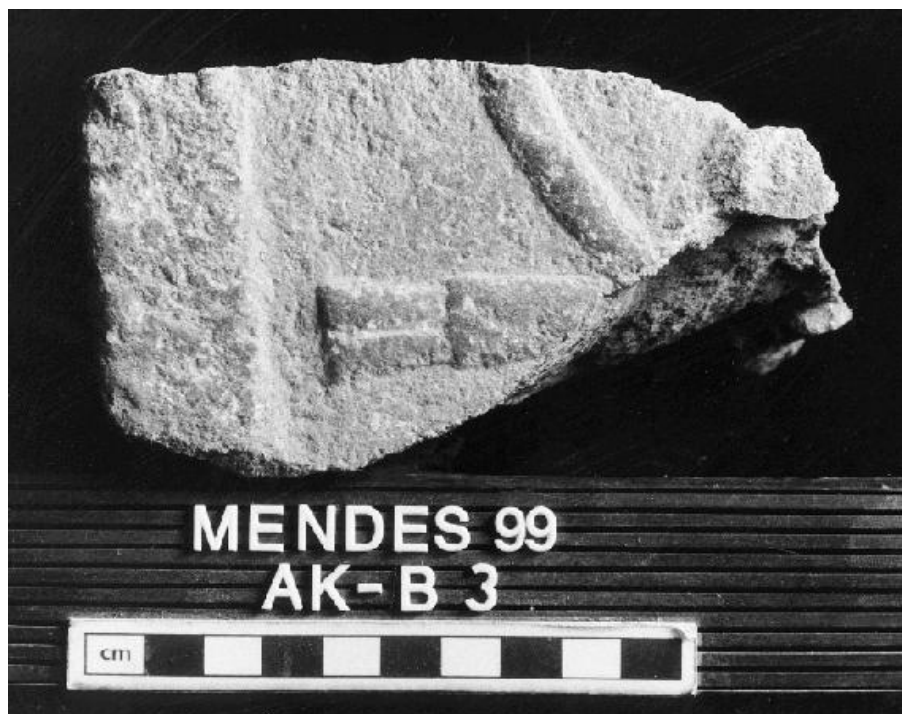
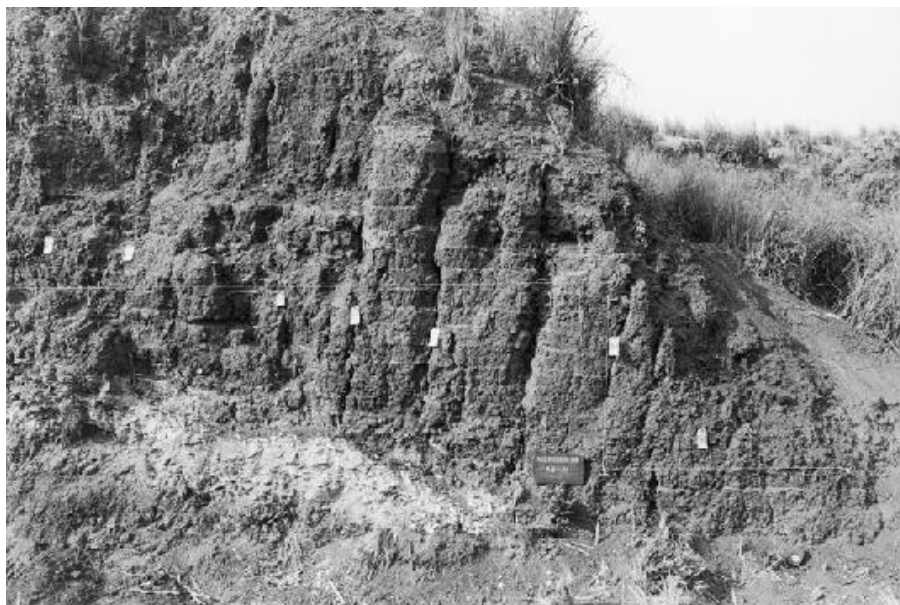


PLATE 22. Fragment of quartzite with *en*^h; rear of temple, west side.



PLATE 23. Fragment of limestone with part of *sd*-pavillion hieroglyph(?); center of temple.

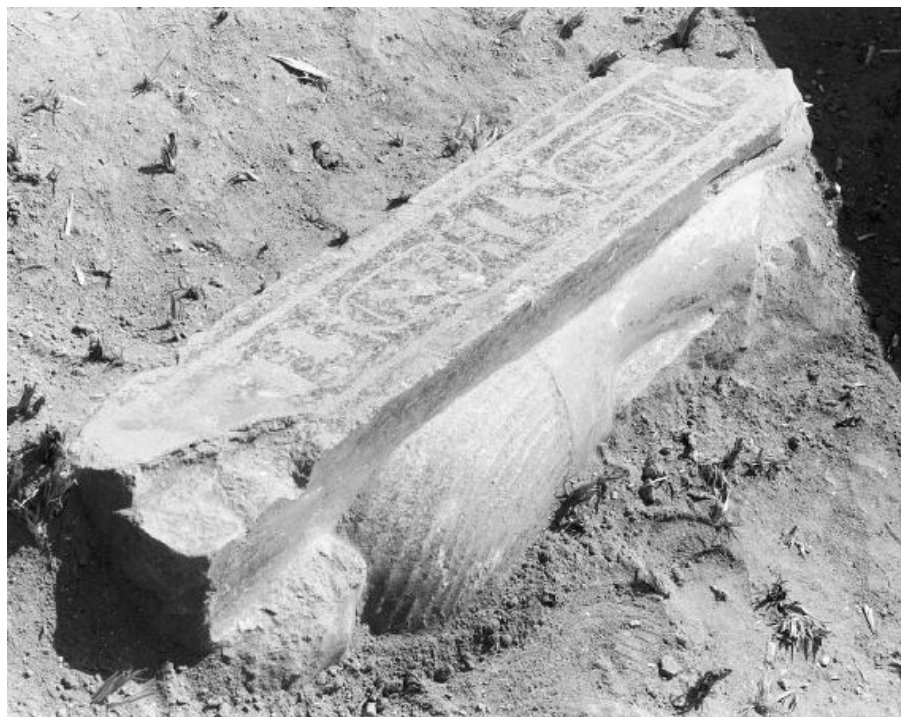


1



2

PLATE 24.1, 2. Cut through eastern aperture of the naos court, facing south; showing sloping ramp and black brick fill.





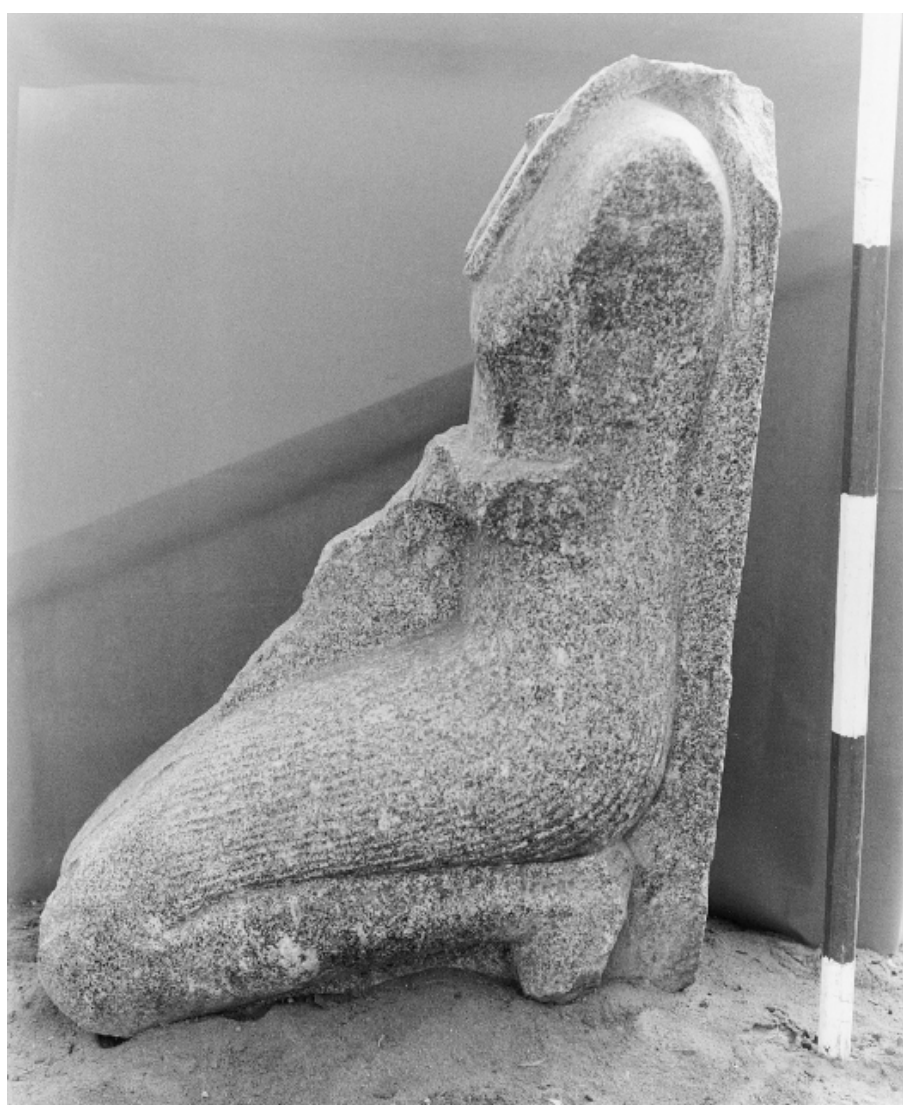




PLATE 25 (four shots). Statue of Philip Arrhidaeus.



PLATE 26. Mud-brick flooring in AR-A. The rectangular depression for the threshold of an entryway(?) is visible on the right.



PLATE 27. Granite door-jamb of Merenptah; AK-FF.

¹ For earlier work at the site, see *inter alia*, E. Naville, "Mendes," in *Ahmes el-Medina (Heracleopolis Magna)*, London, 1894; D.P. Hansen, "Mendes, 1965 and 1966," *JARCE* 6 (1967), 5-51; S.J. Allen, K.L. Wilson, "Excavations at Mendes, 1976-1979, Pottery from Mendes, 7th Season, May-July 1979," *L'Egyptologie en 1979 I* (Paris, 1979), 139-51; K.L. Wilson, *Mendes, Preliminary Report on the 1979*

and 1980 Seasons, Malibu 1982; D.B. Redford, G. Mumford, S. Redford, S. Shubert, R. Hummel, "Three Seasons in Egypt, 3. The First Season of Excavations at Mendes (1991)," *JSSEA* XVIII (1988 [published 1992]), 49–79; D. B. Redford, "Interim Report on the Second Campaign of Excavations at Mendes (1992)," *JSSEA* XXI/XXII (1991–92 [published 1994]), 1–12; D.J. Brewer, R. Wenke, "Transitional Late Predynastic-Early Dynastic Occupation at Mendes," in E.C.M. van den Brink (ed.), *The Nile Delta in Transition* (Tel Aviv, 1992), 191–98; R.F. Friedman, "The Early Dynastic and Transitional Pottery at Mendes. The 1990 Season," *ibid.*, 199–206; D.B. Redford, "Mendes and Environs in the Middle Kingdom," in P. Der Manuelian (ed.), *Studies in Honor of William Kelly Simpson* (Boston, 1996), 679–82; D.B. Redford, "Mendes," in J. Yoyotte (ed.), *L'Égypte du Delta: les capitales du nord. Dossiers d'archéologie*, Dijon, 1996; R.J. Wenke, D.J. Brewer, "The Archaic-Old Kingdom Delta: the Evidence from Mendes and Kom el-Hisn," in M. Bietak (ed.), *Haus und Palast in Alten Aegypten* (Vienna, 1996), 265–86; D.B. Redford, *The Excavations at Mendes I. The Royal Necropolis*, Leiden, 2004; see also reports in the *ATP Newsletters* from 1991 to 2003 inclusive.

2 *Urk.* II, 28–54; H. De Meulenaere, P. Mackay, *Mendes II* (New York, 1976), pl. 1.

3 The course of the Mendesian branch of the Nile in relation to the site has long proved problematical. From the Saite period (at the latest?) until the abandonment of the site in Late Roman times the river ran along the eastern edge of the tell, penetrating westwards just south of kom el-adhem to produce a triangular-shaped harbor (*ATP Newsletter*, May, 1996). But the division of the narrow, 6 km-wide stretch of land separating Mendes from Baqlih into two townships, viz. LE 14 and 15 (F. Gomaa, *Die Einsiedlung Aegyptens während des Mittleren Reiches* II [Wiesbaden, 1987], 239–52) suggests that at some time a natural boundary intervened at this point: M. Bietak, *Tell el-Dab'a* (Vienna, 1975), 94. One wonders whether, in the Third Millennium B.C. such a placement of the river was, in fact, the case. Today one can detect a pronounced lateral depression running from the west side of the tell eastward between the "peninsula" aforesaid and the rise in ground on which sit the First Intermediate Period vaults (Field T-A) and the Ptolemaic mammisi. Could this be the vestige of a channel driven eastwards from the river?

4 Average dimensions vary as the following sample shows: .21 × .91 × .40 cm., 1.05 × .89 × .66 cm., 1.22 × .80 × .60 cm., .93 × .62 × .42 cm.

5 Light gray (5 YR 7/1) to yellowish brown (10 YR 5/4).

6 Cf. *Mendes II*, p. 6

7 Cf. *Mendes II*, p. 17.

8 *P-M IV*, 35; *Mendes II*, p. 192 no. 15.

9 E.g. *P-M VI*, 3; cf. II, 436.

10 *Mendes II*, p. 191 no. 3; pl. 8 (e).

11 This period in the temple's history will be covered in the next report in this journal.

12 At some point in time a large hole, nearly 10 meters in diameter, had been sunk almost to the bottom of the foundation trench at its easternmost extremity. The perpetrators are unknown, but in all probability their object was a foundation deposit.

13 For the foundation deposits of Merenptah's Theban mortuary temple (of a somewhat different composition), see J.M. Weinstein, *Foundation Deposits in Ancient Egypt* (PhD Dissertation, University of Pennsylvania, 1973), 265 no. 95.

14 Weinstein, *op.cit.*, 418.

15 On the Delta monuments of Merenptah, see H. Sourouzzian, *Les Monuments du roi Merenptah* (Mainz am Rhein, 1989), "Première Partie"; the statement on p. 104 regarding the absence of construction of this king in the northern and western Delta will now require modification.

16 H. Kees, *Die Götterglaube im alten Aegypten* (Berlin, 1956), 438–9; E. Hornung, *The Ancient Egyptian Books of the Afterlife* (Ithaca, 1999), 109 fig. 60, 77 fig. 41; T. Bacs, “Amun-re-Harakhte in the Late Ramesside Royal Tombs,” *Studia Aegyptiaca* 14 (1992), 43–53; S. And D. Redford, “The Cult and Necropolis of the Sacred Ram at Mendes,” in S. Ikram (ed.), *Divine Creatures. Animal Mummies in Ancient Egypt* (Cairo, 2005), 190–94.

17 Cf. *Urk.* IV, 224:17 “Ram’s beloved” (epithet of the queen).

18 F. Herbin, *Le Livre de parcourir l’éternité* (Leuven, 1994), 122.

19 K.A. Kitchen, *Ramesside Inscriptions* II, 263:5–11 (Blessing of Ptah).

20 Kitchen, *Ramesside Inscriptions* VII, 95:5 (Ramesses II); P-M VII, 134 (Merenptah-Siptah); Mendes II, 193 no. 19; P-M II (2nd ed), 174, 503 (all Ramesses III); Champollion, *Notices descriptives* I, 464 (Ramesses IX); Kitchen, *Ramesside Inscriptions* VI, 846:14 (Herihor).

21 Queen Ese, Ramesses VI’s mother, adores Ba-neb-djed in her tomb (P-M I, 2, 756; C. Leblanc, *Ta set neferou. Une nécropole de Thebes-ouest et son histoire* [Cairo, 1989], pl. CIX) and her son honors the same deity (Berlin 14230), introducing him specifically along with Ta-tenen in his protestation of guiltlessness (Cairo 48831:16–17). A fragment of a stela of Ramesses VI has also been found at Mendes in the cult seat of the fish-goddess Hat-mehyet, dated ceramically to the 20th Dynasty.

22 The sacred barque at Mendes was the *hpr-h3t*, “foremost entity,” cf. *Temple d’Edfou* I, 334.

23 For Old Kingdom remains, see our next interim report in this journal.

24 Shown in *ATP Newsletter* Sept. 2000, fig. 1.

25 M.V. Seton-Williams, “The Tell el-Fara’in Expedition, 1968,” *JEA* 55 (1969), 8.

26 *Ibid.*, 19.

27 Curiously nothing recovered from this part of the temple pointed to a Ptolemaic date, although reliefs of that period once stood somewhere in the temple: cf. Mendes II, pl. 11, 13. A small sphinx of Ptolemy II was recovered by us on the west side of the temple, but not in situ. Perhaps it was only in the forecourt and before the pylon that the Ptolemies introduced decoration.

28 This will be reported on in detail in the next report.

29 Until now attestations of Hakoris at Mendes have been embarrassingly rare: C. Traunecker, “Essai sur l’histoire de la XXIXe dynastie,” *BIFAO* 79 (1979), 412–14.

30 Mendes II, pl. 8 (b, c, d).

31 Mendes II, pl. 9(b), no. 5.

32 See H. Kees, *Die Götterglaube im alten Aegypten* (Berlin, 1956), 78–81; H. Wild, “Statue d’un noble mendésien du règne de Psamtek Ier aux musées de Palerme et du Caire,” *BIFAO* 60 (1960), 43–67; D. Kessler, *Die heiligen Tiere und der Koenig* I (Wiesbaden, 1989), 154–57; S. Woodhouse, “The sun god, his four bas and the four winds in the sacred district at Sais: the fragment of an obelisk (SM EA 1512),” in S. Quirke (ed.), *The Temple in Ancient Egypt* (London, 1997), 132–51; S. And D.B. Redford, “The Cult and Necropolis of the Sacred Ram at Mendes,” in S. Ikram (ed.), *Divine Creatures. Animal Mummies in Ancient Egypt* (Cairo, 2005), 165–67.

33 An assignment to the reign of Apries (cf. O. Perdu, “Neshor à Mendes sous Apries,” *BSFE* 118 [1990], 38–49) is disproven, not only by the foundation deposits of Amasis in the naos court (D. Hansen, “Mendes 1965 and 1966,” *JARCE* 6 (1967), pl. IX, fig. 10, and pl. X), but also by the correct interpretation of a passage in Nesuhor’s statue inscription from Mendes (Mendes II, p. 21 no. 52), on which see the present author *apud* Ikram, *op.cit.*, 188–90.

34 Hansen, *op.cit.*, pl. VI–VIII.

35 Without doubt, however, the naos court would have been open to the sky: D. Arnold, *Temples of the Last Pharaohs* (Oxford, 1999), 81–82 and fig. 42.

36 That it was from the eastern side that the blocks were brought to the site

undoubtedly reflects the position of the closest *waterway*; but precisely where this would have lain is not immediately apparent.

37 *JARCE* 6, p. 11.

38 See G. Mumford in D.B. Redford, "Three Seasons in Egypt. III. The First Season of Excavations at Mendes (1991)," *JSSEA* 18 (1992), 55–63.

39 The preliminary pottery "read" notes: 7 rims, 2 bases and 2 handles, along with a number of ribbed body sherds – all with a late Roman horizon.

40 See H. Berve, *Das Alexanderreich aus prosopographischer Grundlage* (Munich, 1927), II, no. 781; J. Von Beckerath, *Handbuch der ägyptischen Königsnamen* (Mainz, 1999), 232–33.

41 H. Gauthier, *Le Livre des rois IV* (Cairo, 1916), 206(XI).

42 A. Loprieno, *Ancient Egyptian. A Linguistic Introduction* (Cambridge, 1995), 42.

43 Gauthier, *op.cit.*, 206 (IV–X). I am grateful to Professor H. De Meulenaere for discussing the orthography of the name with me.

44 For the archaeological evidence, see D.B. Redford, *The Excavations at Mendes I. The Royal Necropolis* (Leiden, 2004), *passim*.

45 *Urk.* II, 38:5–8.

46 See Redford, *Excavations at Mendes I*, p. 28 fig. 15. Note the numerous water-laid stria superimposed on the destruction level, and dating from the late 4th to early 3rd centuries B.C.

47 E.R. Bevan, *The House of Ptolemy* (Chicago, 1985), 22, 27.

48 Berve, *Alexanderreich* II, no. 781; P. Green, *Alexander to Actium: the Historical Evolution of the Hellenistic Age* (Berkeley, 1990), 19–20; G. Holbl, *A History of the Ptolemaic Empire* (London, 2001), 22, 27.

49 This thriving commercial revival extends over the 3rd century B.C. and is most evident from our excavations in the harbor (see a future report). Here coins range from Alexander to Ptolemy IV. The present surviving temenos wall of the north-west enclosure dates in all probability to the reign of Ptolemy II: D. Redford, *The Excavations at Mendes I*, 22–23. For Mendes as a banking center under Ptolemy II, see D.J. Thompson, *Memphis under the Ptolemies* (Princeton, 1988), 74. From the beginning of the 2nd century there is a hiatus in the numismatic record, undoubtedly attesting to the effects of the rebellions of the period: C. Preaux, "Esquisse d'une histoire des révolutions égyptiennes sous les lagides," *CdE* 11 (1936), 522–52; W. Peremans, "Les Révolutions égyptiennes sous les Lagides," in H. Maehler, V.M. Strocka (eds), *Das Ptolemaische Ägypten. Akten des internationalen Symposium 27–29 Sept. 1976 in Berlin* (Mainz, 1978), 39–50; Holbl, *op.cit.*, 153–77.

50 A. De Rodrigo, "An Unguent Industry at Mendes," *BES* 14 (2000), 33–39.

51 From *bl3* (Βολ), "seer, interpreter," W. Erichsen, *Demotisches Glossar* (Copenhagen, 1954), 120; J.H. Waszink, *Reallexikon für Antike und Christentum* vol. 2 (1954), 502–8; W. Speyer, *Bucherrunde in der Glaubenswerbung der Antike* (Goettingen, 1970), 26–7, 72–3.

52 Tatian *Oratio ad Graecos*, 38.

53 L. Berkowitz, K.A. Squitier, *Canon of Greek Authors and Works* (Oxford, 1990), 390 no. 2428.

54 Athenaeus iii.83.c

55 *Mendes* II, pl. 27 no. 78; J.-C. Grenier, "Le prophète et l'autocrator," *RdE* 37 (1986), 81–89.

56 H. Verreth, "A Tax List from the Mendesios of the Time of Augustus," in W. Clarysse and others (eds), *Egyptian Religion. The Last Thousand Years Part 1* (Leuven, 1998), 455–76.

57 For the coin of the Judaeen revolt found near the mammisi, see below, the numismatic report of Dr. Holt. It is significant that Titus, in assembling troops for the siege of Jerusalem, brought a legion from Alexandria via the Butic canal which

terminated at Mendes, and thence via Tanis and Pelusium on foot to Jerusalem: Josephus *Bell. Jud.* iv.11.5. Presumably these troops retraced their steps by the same route after the victory.

58 S. Kambitsis, "Sur la toponymie du nome Mendésien," *BIFAO* 76 (1976), 225–30; *idem*, *Le Papyrus Thmouis I, colonnes 68–160*, Paris, 1985; see also J. Quaegebeur, "Documents grecs et géographie historique. Le Mendésien," in *L'Égyptologie en 1979* (Paris, 1979), I, 267–72.

59 S. And D. Redford, *apud* Ikram, *loc. cit.*

60 Philostratus, *vita Apollon.* vi.6ff. There is confusion in the account as to where these "philosophers" are to be located: vi.4 suggests the Thebaid, but the anecdote in vi.5 points to the environs of Memphis. On the (γυμνοσophισταί see F.W. Danker, *Bauer's Greek-English Lexicon of the New Testament and other early Christian Literature* (3rd ed., 2000), 208; J.D. M. Derrett, "gymnosophisten," in *Der Kleine Pauly* II (1975/79), 892–93. I am indebted to my colleague Professor Paul Harvey for these references and for his helpful suggestions.

61 Cf. J.D. Ray, *The Archive of Hor*, London, 1976; R. MacMullen, *Christianizing the Roman Empire* (New Haven, 1984), 99; R.S. Bagnall, *Egypt in Late Antiquity* (Princeton, 1993), 295–97; C.W. Griggs, *Early Egyptian Christianity* (Leiden, n.d.), 102–5; F. Frankfurter, *Religion in Roman Egypt* (Princeton, 1998), 193.

62 The bishopric, however, was centered in Thmuis (*Mendes* II, 5; C.W. Griggs, *Early Egyptian Christianity from its Origins to 451 CE*, (Leiden, 1988), 98; M.E. Johnson, *The Prayers of Sarapion of Thmuis* (Rome, 1995), 21–23. Already by the 2nd Century A.D. Mendes was but a faubourg of Thmuis.

63 *Mendes* II, 23.

64 *Ibid.*, 6

65 D.B. Redford, "Interim Report on the Second Campaign of Excavations at Mendes (1992)," *JSSEA* XXI/XXII (1994), 8–9.

66 The pottery will be the subject of a special report by Dr. De Rodrigo in a future article in this series.

67 H.E. Winlock, *Bulletin of the Metropolitan Museum of Art* 19 (1924).

68 The pedestals do not act as horizontal or vertical dividers, as in the case of Nebwennef at Qurneh (W.M.F. Petrie, *Qurneh*, pl. VIII [33]), or the Ramessesum deposits (J. Weinstein, *Foundation Deposits in Ancient Egypt* [PhD Dissertation, University of Pennsylvania, 1973], 230.

69 See Weinstein, *op.cit.*, 234.

70 *Ibid.*, 248.

71 *Ibid.*, 241.

TWO LATE ROMAN AMPHORAE FROM MENDES

Alicia Daneri Rodrigo

During the 1999 and 2001 campaigns of the Akhenaten Temple Project Mendes Excavations at Tell er Rub'a, ancient Mendes, two Late Roman amphorae were uncovered in the vaults of the Ram Sarcophagi cemetery (RS), located west of the Saite Temple.¹ This type of amphora, known as Late Roman 1 (LR1) is frequently found in late Roman/Byzantine sites of the Eastern and Western Mediterranean, Egypt and Sudan and in outer regions as far as Britain in the West and the Black Sea in the East.²

In Egypt LR1 is a very common ware in Byzantine sites. In the western Delta, hundreds of fragments have been found in the coastal deposits of Lake Mariut ancient amphorae workshops, to the south-west of Alexandria,³ and the type is also abundant in the Coptic monastic site of Kellia,⁴ mainly as ceramic elements employed in the architecture of the vaults.

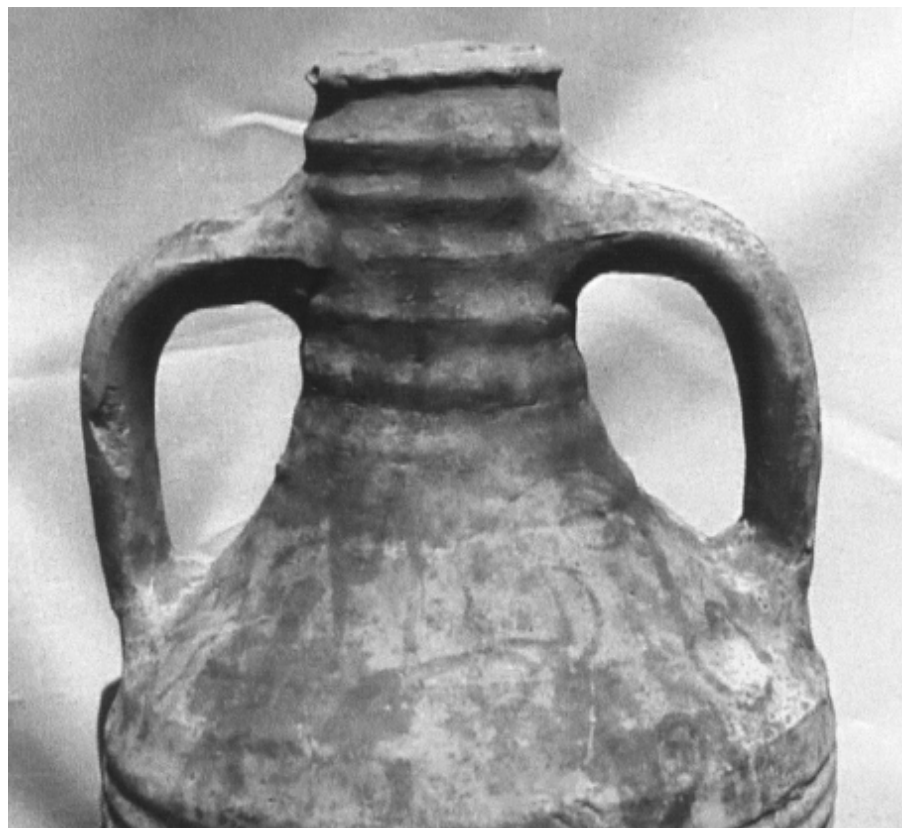
The features of this type are described as "relatively thin walls, with widely spaced ridging at the mid-point of the body, gradually narrowing at the shoulder and base. Red *dipinto* marks in Greek cursive script often occur on the shoulder. There are thick stumpy handles and a thickened rim, which has a slightly concave outer face."⁵ Two versions, a larger and a smaller, are known.⁶ The date ranges from the fourth or early fifth to the mid seventh centuries A.D., and is particularly frequent in the later fifth and early sixth centuries A.D.⁷ The content has not been determined, but wine or oil is suggested.⁸

It is now generally agreed that LR1 amphorae were imported in Egypt.⁹ The likely sources, where workshops have been found, are Cilicia, the Antioch region of Northern Syria and Cyprus. The majority of the samples in Egypt are of Cypriot or Cilician origin, a small number being of unknown provenience.¹⁰ One local imitation of coarse Nile silt has been reported, possibly from the workshops of the monastery of Saint Jeremia in Saqqara.¹¹

MP 9928. RS ANX1 IV 6: Thickened rim, slender neck, wide shoulder, thick ribbed handles attaching from under the rim to the shoulder, body slightly concave at mid point narrowing from the shoulder to a conical base ending in a nipple. Sandy fabric, 2.5 YR 6/8 (light red) with a lighter core (7.5 YR 7/4), medium hard. Inclusions: quartz (~0.25 mm, very abundant; ~0.50 mm abundant; > 2 mm few), limestone (~0.25 mm- ~0.50 mm, abundant), black grit. Surface: A dark layer (firing?) extending to the interior rim; 2.5 YR N4 (dark gray). No inscriptions visible. Gentle ridging on the neck and shoulder, more marked on the body and base, wider spaced ridging at the mid-point of the body. Rim diameter: 7 cm; height: 49 cm; thick ness of the walls: 6 mm at mid-point of the body. Preservation: Mended from several fragments, small sherds missing from the base.

MP 0123. RS ANX 2 101. Whole, with a red *dipinto* inscription on the shoulder. Thickened rim, marked ridging on the neck, ribbed handles, slender conical body ending in a nipple. Surface: uncoated, 10 R 5/8 (red). Rim diameter: 6 cm; height: 49 cm.

Although the Mendes amphorae share the general characteristics that allow us to assign them to the ranges of the LR1 class (shape, fabric, typical ridging and particularly the *dipinto* in MP 0123), they are not identical. The differences, particularly the gray surface in MP 9928 and the conical body in MP 0123, may be attributed to a distinct origin and date.





¹ D.B. Redford *et alii*, 'The first season of excavations at Mendes (1991)', JSSEA XVIII (1988), 49–79; 'Interim Report on the Second Campaign of Excavations at Mendes' (1992), JSSEA XXI–XXII (1991–92), 1994, 1–12.; R. Hummel–S. Shubert, 'Preliminary report on the ceramics from the 1992 season at Mendes', JSSEA XXI/XXII (1991–1992), 13–19; 'Ceramic Report: Mendes 1992–95', in D.B. Redford *et alii*, *Mendes II*, to be published.

² D.P.S. Peacock–D.F. Williams, *Amphorae and the Roman Economy*, London–New York, 1991, Class 44, 185–187.

³ J.Y. Empereur–M. Picon, 'La reconnaissance des productions des ateliers céramiques: l'exemple de la Maréotide', CCE 3 (1992), 145–152.

⁴ P. Ballet–M. Picon, 'Recherches préliminaires sur les origines de la céramique des Kellia (Égypte)', CCE 1 (1987), Late Amphora I = Egloff 164, 21–26; J.W. Hayes, *Handbook of Mediterranean Roman Pottery*, Oklahoma, 1997, col. pl. I.

⁵ Peacock–Williams, 185–186.

⁶ Peacock–Williams, 186; M. Sciallano–P. Sibella, *Amphores. Comment les identifier?*, Barcelona, 1991, 100.

7 Peacock-Williams, 187; Ballet-Picon: from the fourth to the seventh century A.D., 23, n.12. In Egypt the dates are uncertain.

8 M. Sciallano-P. Sibella, 100, type 1a, wine; 1b, oil; Ballet-Picon, 24.

9 On the results of X-ray analyses proving foreign origin of LR1 see Ballet-Picon, 21-26; Peacock-Williams, 186; Empereur-Picon, 149; J. Engemann, 'À propos des amphores d'Abou Mina', CCE 3 (1992), 154. On an Egyptian origin: J. Bourriau, *Umm el Ga'ab*, Cambridge, 1981, 243-244; W.Y. Adams, 'The Vintage of Nubia', Kush XIV (1966), 262-283.

10 Empereur-Picon, 149; Ballet-Picon, 24-26; D.M. Bailey, 'The Pottery from the South Church at El-Ashmunein', CCE 4 (1996), 80.

11 H. Ghaly, 'Pottery workshops of Saint-Jeremia', CCE 3 (1992), 168-170.

NUMISMATIC REPORT

Frank Holt

Twelve more or less identifiable coins (one silver, eleven bronze), plus seven badly corroded pieces of metal that might be the remains of bronze coins, were recovered in the excavations at Mendes from 1995 to the present. Soil conditions in the Nile delta have proved especially hazardous to base-metal artifacts such as bronze coins, which suffer from heavy corrosion. Even the attributable coins found at Mendes did not emerge from the ground in an identifiable condition. Most were covered by encrustations of bronze disease and concreted sand; others were badly cracked and broken by the natural processes of severe corrosion. The worst cases were tentatively labeled "coin?" when found because they could not (and many still cannot) be positively classified as numismatic. For some perspective, an identifiable tetradrachm weighing 8.73 grams after cleaning weighed 12.06 grams beforehand; a bronze prutah weighing 1.82 grams after cleaning weighed 2.15 grams as found. These figures indicate the amount of encrustation that had to be carefully removed from even the best preserved of the Mendes specimens. A slow and deliberate regimen of mechanical cleaning with dental tools, supplemented where practical by electrolytic cleaning using zinc plates and 4% NaOH, worked wonders on most of the finds.¹ This addendum will describe the results for all relevant numismatic materials except those excavated in the 1997 season, which will be the subject of a separate report.²

~~B1061A~~ [1061A-SW III-IV 7, f.n. 13]

~~B2671A~~ [2671A-Pfalzmont 13]

~~B3611A~~ [3611A-B IV 14, f.n. 136]

~~B4371A~~ [4371A-K-FF III 33, f.n. 16]

~~B5891A~~ [5891A-K-AA IV 17, f.n. 14]

Coin #1 was found near the top of the backfill associated with the destroyed burial pit of Nephtherites I (399–393 B.C.). It could therefore be dated stratigraphically to post-343/2 B.C., the year that Artaxerxes

III of Persia zealously ordered the devastation of the Pharaoh's tomb. This artifact from the excavations of the royal necropolis appears to be an unstruck bronze flan of the Ptolemaic period. It may have been unstruck because of a crack at one edge, rendering it unfit for striking. Clearly produced *en chapelette*, the flan has a flat side and a convex side to facilitate removal from the casting mold. It retains the stem that connected it to the "tree" of other attached flans, all cast together and then clipped apart. The artifact also has the small central pip used to guide a primitive lathe in order to trim away these residual stems. This suggests, along with the lack of visible wear on the sharp edges of the stem, that this proto-coin was never completed or circulated. The flan was prepared and then discarded because of its flaw, the deep crack making it impossible to hammer. If this hypothesis is correct, it raises a fascinating question. Normally, the recovery of unstruck flans at an archaeological site indicates the presence of a mint. At the Hellenistic city of Ai Khanoum in Afghanistan, for example, the excavation of ten unstruck bronze flans suggested to its excavators that a mint operated there.³ Other cases have been reported, including Mirgissa near Wadi Halfa, Sudan.⁴ These other sites yielded ten or more flans each, plus occasional mold-trees as well, whereas only one flan has been recovered at Mendes. This makes it impossible to attribute a Ptolemaic mint to the site. Bronze casting in general was practiced in the area of Mendes, as shown by the discovery in 1906 of some molds. More evidence is necessary; until then, this artifact remains an interesting anomaly outside the normal mint-city of Alexandria.

Coin #2 was recovered from the destruction debris of the second ram hypogeum, due north of the temple (see Fig. 1). It was very corroded and cracked, with part of the face broken away and lost. Even before cleaning, it could be observed that this coin was made of layers only partly fused together, into the seams of which corrosion had infiltrated and splayed the edges. This process had flaked away nearly half of the obverse. This fragment of a coin cannot be attributed except to note that it preserves on both faces the dimples characteristic of Ptolemaic and other Hellenistic bronze coinages. These matching indentations probably resulted from the manufacturing process mentioned above, by which a lathe clamped the coin so that it could be turned and trimmed to shape. Unlike coin #1 (the flan), coin #2 clearly had been struck and lathed.

Coin #3 came from the debris of the west side of the great Ramessid court, an area churned up and worked over until about a century ago. This piece had an obvious casting stem. Cleaning could reveal no attributable designs because of heavy wear and deep cracks on both faces.

Coins #4 and 5 came from the temple proper. Coin #4 could not be identified beyond the fact that it, too, bore a distinctive casting stem. This suggests a Ptolemaic issue. Coin #5 clearly has the characteristic dimples on obverse and reverse, as on an earlier specimen; its surfaces are otherwise eroded away.

6. [BIBL 15]

This was struck at Alexandria during the reign of Ptolemy III (246–222 B.C.). It was found in a well filled in some time during the 3rd Century B.C. The obverse depicts Ammon's head to right, the reverse exhibits the usual eagle standing on a thunderbolt.

7. [BIBL 16]

This was found in the inner harbor, south of the temple temenos. It was issued in the reign of Ptolemy V (204–180 B.C.), and shows Ammon on the obverse and double eagles on the reverse.

8. [ASHM 157] (Figs 5–6)

This, the most interesting of the Ptolemaic specimens, was found atop a casemate structure which appears to have been built to support the massive south-east corner of the massive Ptolemaic wall surrounding the north-east enclosure. (Fig. 2–3). As discovered, it was covered with large powdery green, brown and tan accretions. Careful cleaning over the course of five days slowly revealed the features of this coin, which had been obscured by deep layers of green and red corrosion (Fig. 4). The extent of these accretions may be judged in a comparison of the cleaned weight (8.733 g) and uncleaned weight (12.038 g). As one might surmise from the reddish hue of the cleaned coin, it is 90% copper and only 10% silver. Still, it is the only “silver” issue from recent excavation seasons at Mendes.

This coin was struck at Alexandria in the 15th year of the reign of Cleopatra VII (38/7 B.C.), at the time of her famous liaison with Marc Antony. The founder of the kingdom, Ptolemy I, appears on the obverse. Part of the inscription ΒΑΣΙΛΕΩΣ ΠΤΟΛΕΜΑΙΟΥ may be seen on the reverse, along with the eagle and a palm branch. The mint mark (Α!) is in the right field, and the date (ΛΙΕ) in the left field above the Isis headdress. The low weight and base metal exemplify the progressive debasement of Ptolemaic silver currency during the last reigns of the dynasty. Even so, this coin was worth 2000 copper drachms and was doubtless sorely missed by the unfortunate who lost it at Mendes!

9. [BIBL 15, f.n. 15] (Figs 7–8)

This surprising find (Fig. 5) came from a surface deposit associated with a Ptolemaic (?) building (possibly a mammisi) north of the first pylon of the temple of the ram. It was hoped that this artifact might assist in dating the abandonment of the building. In fact, the coin can be precisely dated, and it circulated only for a brief period. As found, it suffered from cuprite “warts” and active bronze disease; considerable cleaning was necessary in order to reveal its original surfaces. The obverse shows a two-handled ceremonial temple vessel and reads in Hebrew SNT STYM (“Year Two”). The reverse type is a vine branch and grape leaf with the inscription HRT SYWN (“Freedom of Zion”). This coin, a Jewish *prutah*, was struck in the second year (A.D. 67) of the Jewish Revolt against Rome. Chronologically, this is very important because these coins enjoyed a very limited period of circulation. The rebellion ended in A.D. 70 when Jerusalem was sacked; thereafter, only Masada held out against the Roman legions. Meanwhile, the Flavian authorities are believed to have forbidden the use of these “illegal” revolt coinages, as reflected in the Talmud’s injunction against shekels minted during the rebellion. As currency, coin #6 would presumably have circulated only in Judaea for a few years. How and why it reached Mendes in the Nile delta cannot be known. It is worth noting that in 1905 a small hoard of seven Jewish bronzes (including three revolt issues) was found at Tell el-Heir on the eastern side of the delta. Because of the limited circulation of the Revolt coins, this hoard was dated to A.D. 70. The rare example from Mendes might be seen in the context of war refugees passing through the area, or of a Jewish community with close ties to the rebels. Any number of explanations come to mind, of course, but all of them place Mendes in the cultural crossroads of the Levant at a critical moment for the peoples of Egypt, Rome, and Judaea. Both in 343 B.C. and A.D. 70, Mendes seems to have been caught up in the military affairs that shook the ancient world.

10. ~~Prutah~~ ^{Prutah}, f.n. 2] (Figs 1–2)

Coin #10 came from the second ram hypogeum north of the temple. It is very worn and little remains of its original coin-types. Experts at the American Numismatic Society in New York suggest that it might be a late third century Roman issue of either Probus or Diocletian. A coin of Probus was found at nearby Thmuis in 1906 by local inspector Mohammad Effendi Chaban, as well as a coin issued by Aurelian and Vaballathus, so this identification would not be surprising.

11. ~~Prutah~~ ^{Prutah} IV 1; f.n. 19] (Figs 3–4)

Coin # 11 came from the surface of the western entry to the naos

court of Amasis. It can be identified with certainty as a Roman imperial bronze issue of c. A.D. 400. The obverse shows traces of an emperor's bust to right, but unfortunately the lettering has been worn away. The reverse presents quite clearly the type of Victory crowning a standing emperor, with the Latin inscription VIRTUS EXERCITI. This type was struck by emperors Honorius and Arcadius, the sons of Theodosius I, between c. 395 and 402.⁵ The mint-mark in the exergue appears to be [S]MNA, indicating the city of Nicomedia. A precisely rectangular indentation on the standing emperor's chest suggests a possible countermark, but these are rare for this period and must remain conjectural.

12. ~~BS 74~~ [3, f.n. 11]

Coin # 12 was recovered c. 50 cm. beneath the surface in unit 2 of the ram hypogeum, due west of the temple. This small piece has indistinct markings, but the staff of the American Numismatic Society agrees that it is perhaps a Vandalic victory issue commonly found in North Africa.



FIG. 1



FIG. 2



FIG. 3



FIG. 4



FIG. 5



FIG. 6



FIG. 7



FIG. 8

¹ Some of the costs were kindly underwritten by the University of Houston.

² These four coins include two Ptolemaic bronzes, a silver tetradrachm of Cleopatra VII, and an unattributable bronze.

³ Paul Bernard, *Fouilles d'Ai Khanoum IV: Les monnaies hors trésor* (Paris: Boccard, 1985), pp. 13–14, 83–84, citing the case also of Nea Paphos in Cyprus.

⁴ Georges le Rider, "Monnaies trouvées à Mirgissa," *Revue Numismatique* 12 (1970): 28–35.

⁵ See, for example, R.A.G. Carson, *Coins of the Roman Empire* (London: Routledge, 1990), pp. 211–212 and Plate 62, no. 937.

LATE NEW KINGDOM CERAMICS AT MENDES

Rexine Hummel

The Akhenaten Temple Project at Mendes, under the direction of Dr. Donald B. Redford, uncovered extensive deposits of Late New Kingdom pottery in the necropolis area (Field AL) during the summer seasons of 1993, 1994 and 1995. This paper proposes to describe the forms and wares represented in this corpus and to present evidence in support of late New Kingdom dating for the assemblage.¹

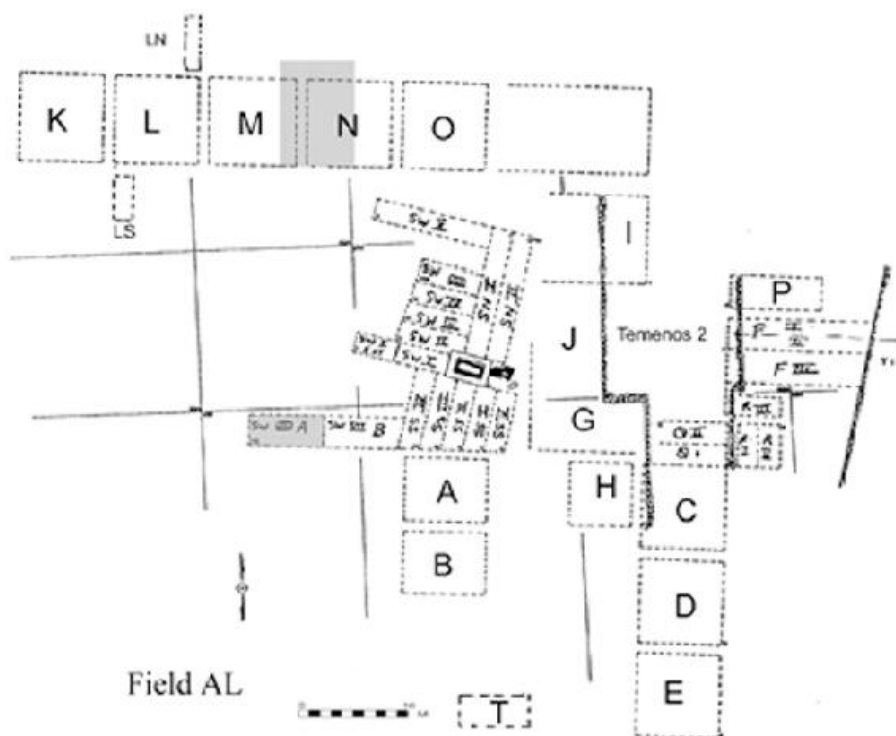
EXCAVATION

The necropolis area of ancient Mendes is located in the southwestern quadrant of the main temenos enclosure. During the 1993 season excavation in adjoining squares ALM and ALN uncovered a stratum of whole vessels, most of which had been placed in superimposed rows with their rims oriented to face south-west. Found nearby, in the shallow ruins of a brick-lined circular structure, was an interesting cluster of twenty-eight vessels, mostly beer jars, that appear to have fallen, coming to rest with their rims towards the south-east. Although the orientation of the vessel groups is not random, its significance is unknown. A mud-brick wall of later date cut into the ceramic stratum on the eastern side of square ALN.

In 1994 a 1.5 metre wide trench excavated along the northern edge of squares ALM and ALN exposed an additional twenty-eight vessels with a south-west rim orientation. Two intrusions disturb this orderly placement of vessels: a two meter deep Late Period ditch terminates the ceramic stratum at the western edge of ALM and a long east-west trench of Hellenistic date cuts through the centre of the ALM-ALN squares.

Another large assemblage of whole and restorable vessels found at the end of the 1994 season about 22 meters to the south of ALM-ALN in square ALSW VIIA was reburied and left until the 1995 season for

processing and drawing. The excavator noted in her book: "My impression of the pottery fall is not that of a random or haphazard collection. The arrangement appears to be an orderly one as the mouths of the vessels fall toward the north-west of the square." Much of this southern deposit had been sliced into by the construction of King Nepherites' funeral chamber in the fourth century and the stratigraphy sustained more damage when robbers broke into the tomb and dragged out the sarcophagus. More of this ceramic stratum survived in the unexcavated areas between the northern and southern squares. Unfortunately, no traces of walls associated with the ceramic stratum were discovered.²



Plan of Area AL with locations of pottery deposits shaded.

Well-dated pottery assemblages of the Late New Kingdom and the Third Intermediate Period had been rare, but David Aston's recent publication of pottery from Qantir, Elephantine and some Theban tombs and reinvestigation of old excavation reports present a well-researched corpus to fill this gap. Aston's inclusion of pottery from only well-dated contexts as examples for his three basic chronological phases makes his publication a particularly valuable resource and the present study relies heavily on his "Egyptian Pottery of the Late New Kingdom and Third Intermediate Period" for parallels.³ Our large

assemblage of whole vessels from Mendes will be a welcome addition to this growing corpus of Late New Kingdom pottery.

POTTERY

Of the 350 whole or partially whole vessels registered, 249 are illustrated here. Many of the vessels were crushed beyond restoration, but their forms and wares could be recognized and therefore registered by the ceramicists. Those few that were badly crushed with no surviving diagnostic fragments were discarded. A monumental effort lasting more than three seasons restored as many vessels as possible.⁴

The pottery from excavation units ALN and ALM was divided into five levels reflecting the archaeological layers; the fifth level being the lowest. Initially it was hoped that changes in vessel form between levels would become apparent. However, the assemblage while revealing many variations is essentially homogenous and as such appears to have been deposited over a short period of time. The vessels are arranged on the plates by form and then by level so the reader can make an independent decision. The pottery from ALSW VIIA, although undoubtedly belonging to the same ceramic stratum, could not be related archaeologically with the other deposits and is presented as a separate group.

LEVEL	JARS	DECANTERS	BEER JARS	CYLINDRICAL JARS	BOWLS	AMPHORAE	MISCELLANEOUS
1	11 (2)	0	0	0	0	0	0
2	32 (18)	26 (17)	38 (16)	4 (4)	0	2 (2)	7 (6)
3	12 (6)	25 (13)	2 (2)	1 (1)	2 (2)	1 (1)	2 (2)
4	18 (13)	18 (16)	22 (18)	5 (5)	0	0	1 (1)
5	(2) 0	0	3 (2)	0	3 (3)	0	0
AL SW	35 (26)	40 (40)	23 (20)	5 (4)	3 (2)	2 (2)	5 (5)
total	110	109	88	15	8	5	15
% of total	31.5%	31%	25%	4%	2%	1.5%	4%

TABLE 1. Distribution of vessels by level. The number of vessels illustrated appears in brackets.

This large ceramic assemblage contains few vessel types with most being common domestic forms. Globular and oval jars constitute 110 of the 350 vessels or 31.5% and include storage jars and cooking pots in a variety of sizes and rim styles (Figs 17–26).

Slender jars used for pouring and drinking makeup another 31% of the assemblage and occur in small, medium and large sizes. Here all are called decanters, although it is probable that the smaller jars were used as drinking vessels (Figs 1–8).

Neckless jars with flat, finger-impressed bases, generally referred to as “beer jars,” comprise 25% of the total or 88 vessels. Many of these were found with intentional perforations in their bases. (Figs 9–16)

Long cylindrical jars constitute 4% of the assemblage or 15 vessels (Figs 27–30).

Amphorae and large storage jars make up a surprisingly small 1.5% of the total or 5 vessels (Fig. 32).

Bowls are also poorly represented in this group comprising only 2% of the total or 8 vessels. Most of these were found in the lowest level raising the suspicion that level five may include some of the underlying stratum and that these bowls are intrusive from the Middle Kingdom level directly below. The relative absence of simple bowls in such a large ceramic assemblage is extremely unusual in Egyptian deposits (Fig. 31).

The remaining miscellaneous ceramics, representing 4% of the assemblage include pitchers, chalices, unguent vessels and four slim jars with pedestal bases and fish decoration (Figs 33–34).

WARES

Nile Silt

Almost all of the vessels in this corpus were manufactured from a Nile Silt clay that fired to colours ranging from a cinnamon brown (Munsell 7.5YR 6/4) to a rusty orange (Munsell 2.5YR 6/8). Sections generally exhibit a black or red-black-red core, but in thin-walled sherds or very well-fired examples the core is red. This fabric is tempered with varying quantities of mineral and organic material and in many vessels fine chaff is visible on the surface. The predominant rust-coloured fabric is slightly harder than the brown fabric, a result no doubt of variation in the firing process. Most of the Mendes assemblage was made from Medium Silt. Coarse Silt, similar to the preceding but poorly mixed and exhibiting large sized mineral and organic inclusions, was usually reserved for large thick-walled vessels. Less frequently found were vessels made of Fine Silt, which is dense and well-levigated and often with no obvious inclusions. Surface treatments for all Nile Silt wares include red slip, thick cream slip, and a streaky cream slip with patches of pink. A few of the vessels, mostly decanters, were decorated with black or white horizontal bands on red slip and at times with incised horizontal lines. An example of blue paint was also found on one fish-shaped jar.

Marl D

A small number of vessels in the ceramic stratum were manufactured of Marl D clay which is described in the Vienna System as “a dense, hard, red or brown fabric with abundant fine to medium particles of limestone added as temper to the clay.”⁵ Fine to coarse sand grains and some dark rock material may also be present in the clay. Vessels made from this ware are usually coated with a thick cream slip. The clay source or sources of Marl D may be in the Delta or Memphite region where vessels of this fabric are very common in Eighteenth and Nineteenth Dynasty deposits.⁶

Mixed Clay

The so-called “Mixed Clay” wares have recently been recognized and described.⁷ Macroscopic analysis of the fabric has revealed it to be Nile Silt mixed with sand and coated with a thick Marl slip. The ware is tempered by fine sand and few organic remains and is distinguished by its hardness and density. A common variant has abundant fine limestone inclusions. The section reveals a wide distinct black core with narrow red-brown outer zones. The surface of this ware is coated with a thick cream or peach slip and some vessels show streaky brush strokes often in random directions. Mixed Clay fabric is important for ceramicists and archaeologists since its chronological range at Memphis begins in Nineteenth Dynasty contexts and continues into Third Intermediate Period deposits. It is most commonly used for a particular type of amphorae and eventually replaces the Marl D amphorae.⁸

DECANTERS AND DRINKING VESSELS (FIGS 1–8)

Holthoer labeled these narrow jars with straight or flaring necks decanters because of their depictions in tomb paintings, where they are seen being used for drinking, serving and storing wine, beer and other liquids.⁹ The popularity of this form begins in the Middle Kingdom, peaks during the Eighteenth and Nineteenth Dynasties and gradually weakens through the Twentieth Dynasty to finally disappear by the Twenty-First Dynasty. The Mendes decanters, comprising 31% of the total assemblage, are all manufactured from the local Medium Nile Silt. They are typically cylindrical in shape with a direct rim and a rounded base, and the widest part of the vessel is located just above the base. One observable change is the appearance of a subtle waist at mid-point in the later examples. The vessels are frequently coated with a rusty red slip and a small number of them are decorated with black or white horizontal bands and a few with incised horizontal

lines. They occur in small, medium and large sizes ranging in height from 12 to 35 cm. One can speculate that the very large examples were used for serving liquids and the smaller vessels used for drinking or dipping. Two of the small decanters tested for capacity were found to hold 400 ml of water (twelve ounces or one and one-half cups).¹⁰ Rarely have any contents survived. One jar with its clay sealing plug intact contained grey ash and cereal grains. Others had black tar-like stains that in many cases dripped down the exteriors and that may have been some type of preservative. A small, broken, unfired, clay seal found in a decanter from square ALSW (Fig. 7:8) bears a partial inscription that has been translated by Dr. Redford as "House of Amun." The context in which the vessels were found was not domestic but rather suggestive of an area near a shrine or temple dedicated to offerings. Admittedly, the supposed offerings were poor in quality judging by the cheaply made containers of local clay.

LARGE DECANTERS (FIG. 1)

The large decanters, ranging in height from 25 to over 35 cm, were probably used to serve wine and other liquids. This form is found in Twentieth Dynasty contexts as far north as Qantir¹¹ and as far South as Elephantine.¹²

level two

- 1:1 Decanter, MP 93215. Locus AL M IV 7. Restored. Rim: 9.5 cm. Surface: Red slip.
- 1:2 Decanter, MP 93074. Locus AL M III 5b. Partially restored. Rim: Missing. Surface: Wet-smoothed. Incised horizontal lines.
- 1:3 Decanter, MP 93095. Locus AL N I 25. Incomplete. Rim: 10 cm. Surface: Red slip.

level three

- 1:4 Decanter, MP 93161. Locus AL N II 27. Intact. Rim: 8 cm. Surface: Thick red slip.

level four

- 1:5 Decanter, MP 94234. Locus AL N V 7. Restored. Rim: 8 cm. Surface: Red slip. Incised horizontal line.
- 1:6 Decanter, MP 93127. Locus AL N I 44. Intact. Rim: 8 cm. Surface: Red slip. Incised horizontal line.
- 1:7 Decanter, MP 93194. Locus AL N II 26. Partially restored. Rim: Missing. Surface: Self slip.

SMALL DECANTERS (DIPPERS, OR DRINKING VESSELS) (FIGS 2–8)

Parallels for small decanters can be found in the Twentieth Dynasty levels at Elephantine¹³ and at Deir el-Medineh.¹⁴

level two

- 2:1 Decanter, MP 93098. Locus AL N I 31. Intact. Rim: 7.5 cm. Surface: Wet-smoothed. Soot or black residue on part of rim.

- 2:2 Decanter, MP 93099. Locus AL N I 31. Intact. Rim: 6 cm. Surface: Red slip.
- 2:3 Decanter, MP 93150. Locus AL N I 31. Restored. Rim: 5 cm. Soot on body.
- 2:4 Decanter, MP 93122. Locus AL N I 31. Restored. Rim: 7 cm. Soot on body.
- 2:5 Decanter, MP 93096. Locus AL N I 31. Intact. Rim: 7 cm. Surface: Red slip.
- 2:6 Decanter, MP 93091. Locus AL N II 16. Intact. Rim: 6.5 cm. Surface: Red slip.
- 2:7 Decanter, MP 93090. Locus AL N II 16. Intact. Rim: 6 cm. Surface: Red slip.
- 2:8 Decanter, MP 90393. Locus AL N II 16. Restored. Rim: 7 cm. Surface: Red slip.
- 2:9 Decanter, MP 93254. Locus AL N I 34. Intact. Rim: 6 cm. Surface: Red slip.
- 2:10 Decanter, MP 93253. Locus AL N I 34. Restored. Rim: 6.5 cm. Surface: Red slip.
- 2:11 Decanter, MP 93097. Locus AL N I 28. Intact. Rim: 8 cm. Surface: Red slip.
- 2:12 Decanter, MP 93174. Locus AL N II 31. Intact. Rim: 5 cm. Surface: Red slip.

level three

- 3:1 Decanter, MP 93190. Locus AL N II 28. Restored. Rim: 5 cm. Surface: Self slip.
- 3:2 Decanter, MP 93137. Locus AL N II 21. Restored. Rim: 6 cm. Surface: Soot.
- 3:3 Decanter, MP 93153. Locus AL N II 28. Restored. Rim: 6 cm. Surface: Red slip.
- 3:4 Decanter, MP 93128. Locus AL N II 21. Intact. Rim: 5.5 cm. Surface: Red slip.
- 3:5 Decanter, MP 93173. Locus. AL N II 28. Intact. Rim: 9 cm. Surface: Red slip.
Two opposing holes perforate the wall below the rim.
- 3:6 Decanter, MP 93132. Locus AL N II 21. Intact. Rim: 6 cm. Surface: Red slip.
- 3:7 Decanter, MP 93191. Locus AL N II 28. Intact. Rim: 8 cm. Surface: Orange slip.
- 3:8 Decanter, MP 93157. Locus AL N I 47. Partially restored. Rim: 10 cm. Surface: Self slip.
- 3:9 Decanter, MP 94276. Locus AL N I 41. Partially restored. Rim: 6.5 cm. Surface: Red slip.
- 3:10 Decanter, MP 93131. Locus AL N II 21. Intact. Rim: 6.5 cm. Surface: Red slip.
- 3:11 Decanter, MP 93125. Locus AL N II 21. Restored. Rim: 6 cm. Surface: Red slip.
- 3:12 Decanter, MP 94264. Locus AL N I 48. Restored. Rim: 7.5 cm. Surface: Red slip.

level four

- 4:1 Decanter, MP 94362. Locus AL N V 7. Intact. Rim: 7.5 cm. Surface: Red slip.
- 4:2 Decanter, MP 93126. Locus AL N I 35. Restored. Rim: 5.5 cm. Surface: Red slip.
- 4:3 Decanter, MP 94252. Locus AL N V 7. Intact. Rim: 5.5 cm. Surface: Red slip.
- 4:4 Decanter, MP 95085. Locus AL N V 7. Restored. Rim: 7 cm. Surface: Red slip.
- 4:5 Decanter, MP 94254. Locus AL N V 7. Partially restored. Rim: Missing. Surface: Red slip. A gray unfired clay plug was retrieved from this vessel. Contents include gray ashes and cereal grains.
- 4:6 Decanter, MP 94288. Locus AL N V 7. Partially restored. Rim: Missing. Surface: Red slip.
- 4:7 Decanter, MP 94370. Locus AL N V 7. Intact. Rim: 7 cm. Surface: Red slip.
- 4:8 Decanter, MP 94275. Locus AL N V 7. Restored. Rim: 8 cm. Surface: Red slip.
- 4:9 Decanter, MP 94269. Locus AL N V 7. Restored. Rim: 8.5 cm. Surface: Red slip.
- 4:10 Decanter, MP 93133. Locus AL N I 44. Restored. Rim: 8 cm. Surface: Red slip.

area AL SW

- 5:1 Decanter, MP 95071. Locus AL SW VIIA 21. Intact. Rim: 6.5 cm. Surface: Red slip.
- 5:2 Decanter, MP 95016. Locus AL SW VIIA 21 Restored. Rim: 6 cm. Surface: Red slip.
- 5:3 Decanter, MP 95011. Locus AL SW VIIA 21. Restored. Rim: 6.5 cm. Surface: Red slip.

- 5:4 Decanter, MP 95074. Locus AL SW VIIA 21. Restored. Rim: 8 cm. Surface: Black tar-like drops on exterior.
- 5:5 Decanter, MP 95092. Locus AL SW VIIA 21. Restored. Rim: 7.5 cm. Surface: Red slip.
- 5:6 Decanter, MP 95081. Locus AL SW VIIA 21. Incomplete. Rim: Missing.
- 5:7 Decanter, MP 95007. Locus AL SW VIIA 21. Intact. Rim: 6.5 cm. Surface: Red slip.
- 5:8 Decanter, MP 95026. Locus AL SW VIIA 21. Restored. Rim: 6 cm. Surface: Red slip.
- 5:9 Decanter, MP 95062. Locus AL SW VIIA 21. Intact. Rim: 7 cm. Surface: Red slip.
- 5:10 Decanter, MP 95019. Locus AL SW VIIA 21. Intact. Rim: 6.5 cm.
- 6:1 Decanter, MP 95013. Locus AL SW VIIA 21. Intact. Rim: 6 cm. Surface: Red slip.
- 6:2 Decanter, MP 95034. Locus AL SW VIIA 21. Intact. Rim: 6 cm.
- 6:3 Decanter, MP 95047. Locus AL SW VIIA 21. Intact. Rim: 4.5 cm. Surface: Red slip.
- 6:4 Decanter, MP 95075. Locus AL SW VIIA 21. Partially restored. Rim: Missing. Surface: Black tar-like stains.
- 6:5 Decanter, MP 95012. Locus AL SW VIIA 21. Restored. Rim: 6.5 cm.
- 6:6 Decanter, MP 95020. Locus AL SW VIIA 21. Restored. Rim: 6 cm. Surface: Red slip.
- 6:7 Decanter, MP 95165. Locus AL SW VIIA 21. Restored. Rim: 7 cm. Surface: Red slip. Black tar-like stains on interior and exterior.
- 6:8 Decanter, MP 95068. Locus AL SW VIIA 21. Partially restored. Rim: Missing. Surface: Black tar-like stains on interior and exterior.
- 6:9 Decanter, MP 95037. Locus AL SW VIIA 21. Restored. Rim: 7 cm. Surface: Red slip.
- 6:10 Decanter, MP 95018. Locus AL SW VIIA 21. Partially restored. Rim: Missing.
- 6:11 Decanter, MP 95125. Locus AL SW VIIA 21. Restored. Rim: 5.5 cm. Surface: Red slip.
- 6:12 Decanter, MP 95024. Locus AL SW VIIA 21. Restored. Rim: 6.5 cm. Surface: Red slip.
- 6:13 Decanter, MP 95134. Locus AL SW VIIA 21. Partially restored. Rim: Missing.
- 6:14 Decanter, MP 95008. Locus AL SW VIIA 21. Partially restored. Rim: Missing. Surface: Red slip.
- 6:15 Decanter, MP 95049. Locus AL SW VIIA 21. Partially restored. Rim: Missing. Surface: Red slip. Black tar-like stains on interior.
- 6:16 Decanter, MP 95035. Locus AL SW VIIA 21. Partially restored. Rim: Missing.

DECANTERS WITH A VARIETY OF BASES (FIG. 7)

A small group of decanters have flattened or disc bases that allow them to stand on a flat surface.

level two

- 7:1 Decanter, MP 93216. Locus AL M IV 7. Restored. Rim: 6 cm. Disk base.

level four

- 7:2 Decanter, MP 95097. Locus AL N V 7. Incomplete. Rim: missing. Surface: Red slip. Small disk base.
- 7:3 Decanter, MP 94253. Locus AL V N 7. Restored. Rim: 8.5 cm. Surface: Red slip. Concave disk base. This vessel has a markedly different shape from the other

decanters.

area SW VIIA

- 7:4 Decanter, MP 95038. Locus AL SW VIIA 21. Restored. Rim: 7 cm. Surface: Red slip. Flat base.
- 7:5 Decanter, MP 95014. Locus AL SW VIIA 21. Restored. Rim: 7 cm. Surface: Red slip. Flat base.
- 7:6 Decanter, MP 95063. Locus AL SW VIIA 21. Restored. Rim: 6.5 cm. Flat base.
- 7:7 Decanter, MP 95010. Locus AL SW VIIA 21. Restored. Rim: 8 cm. Flat base. Unusual bulbous neck.
- 7:8 Decanter, MP 95128. Locus AL SW VIIA 21. Restored. Rim: 6 cm. Surface: Red slip. Small disk base. Contained clay seal impressed with hieroglyphs translated as "House of Amun."
- 7:9 Decanter, MP 95065. Locus AL SW VIIA 21. Intact. Rim: 8.5 cm. Surface: Red slip. Button base.
- 7:10 Decanter, MP 95102. Locus AL SW VIIA 21. Fragment. Rim: Missing. Surface: Red slip. Small disk base.

DECORATED DECANTERS (FIG. 8)

Decanters decorated with painted horizontal bands appear in Aston's Phase I dated to the Twentieth Dynasty.¹⁵

level two

- 8:1 Decanter, MP 93165. Locus AL N I 31. Restored. Rim: 6 cm. Surface: Red slip. Three black horizontal bands.

level four

- 8:2 Decanter, MP 93201. Locus AL N I 46. Restored. Rim: 7.5 cm. Surface: Red slip. Four alternating yellow and white horizontal bands. Two opposing holes perforate the wall of the vessel just below the neck.

area AL SW

- 8:3 Decanter, MP 95127. Locus AL SW VIIA 21. Restored. Rim: 6 cm. Surface: Red slip. Three white horizontal bands. Black tar-like substance on interior with black droplets on exterior.
- 8:4 Decanter, MP 95009. Locus AL SW VIIA 21. Restored. Rim: 7 cm. Surface: Red slip. Four white horizontal bands.
- 8:5 Decanter, MP 95040. Locus AL SW VIIA 21. Restored. Rim: 7 cm. Surface: Red slip. Six white horizontal bands.
- 8:6 Decanter, MP 95039. Locus AL SW VIIA 21. Partially restored. Rim: Missing. Surface: Red slip. Six alternating black and white horizontal bands.
- 8:7 Decanter, MP 95073. Locus AL SW VIIA 21. Intact. Rim: 6.5 cm. Surface: Red slip. Three white horizontal bands. Black tar-like substance on interior with black stain on one side of exterior.
- 8:8 Decanter, MP 95072. Locus AL SW VIIA 21. Partially restored. Rim: Missing. Surface: Three black horizontal bands.
- 8:9 Decanter, MP 95050. Locus AL SW VIIA 21. Fragment. Rim: Missing. Surface: Red slip. One black horizontal band.

BEER JARS (FIGS 9–16)

One of the most common vessel forms in this ceramic stratum, comprising 25% of the corpus with 88 examples, is the ubiquitous beer jar.¹⁶ These vessels are found in large quantities at New Kingdom sites all over Egypt. Although commonly called beer jars the jar's original contents remain unidentified. Holthoer classified them as "beer bottles" because they were frequently found with "flower pots" (bread moulds) and therefore seemed representative of the bread and beer offering formula. At Mendes, however, accompanying flower pot vessels are conspicuous by their absence and other sites report a similar phenomenon.

All beer jars in this assemblage are wheel-made from Medium Nile Silt clay. Generally fired to a medium soft hardness, most of the vessels were found crushed in situ and required extensive restoration. Surfaces were rarely slipped and were left un-compacted to allow them to breathe and keep their contents cool. They range in height from 23 to 32 cm but most jars are between 25 and 28 cm high. Rim diameters average 10 to 12 cm and the widest part of the vessel is at the shoulder with widths ranging from 16 to 18 cm. The rims and upper shoulders of the jars appear to have received careful modeling and smoothing in comparison to the lower sections which are often coarse, with obvious wheel marks and an unfinished appearance. Some of the rims are warped, suggesting that the vessels were cheaply and hastily made. Many of the jars exhibit the heavy, crude, flat bases with the familiar finger indentations that are the signature of New Kingdom beer jars of the Eighteenth and Nineteenth Dynasties. Beginning in the Twentieth Dynasty (Aston's Phase I) some of these bases are treated with more care – excess clay is trimmed off and finger indentations removed. This tendency becomes characteristic of beer jars in Aston's Phase II.¹⁷ Heavy ribbing¹⁸ on many of the beer jars also becomes noticeable in the Twentieth Dynasty. In the Mendes corpus the familiar Eighteenth Dynasty holemouth rim has been replaced by the direct upright rim popular in the Nineteenth and Twentieth Dynasties. A stratigraphic comparison of the beer jars showed the entire group to be fairly homogenous with few variations appearing in the sample. Some loci produced a cluster of similar jars (for example, locus ALN V 7) but this is not common. The beer jars are remarkably similar in size and appearance, and although they are a long-lived form that makes them less suitable for dating purposes our examples are not out of place in the Twentieth Dynasty. Beer jars were found in the foundation deposits, dated to the end of the Nineteenth Dynasty, of both the Siptah and Tausert temples at Thebes.¹⁹ The beer jars at Mendes also appear to have been used in a ritual context.

Three of the beer jars were tested for their liquid capacity with the following results:²⁰

MP 95163 – 2600 ml to top of rim. 2400 ml to base of rim. (Fig. 12:1)
MP 94260 – 3000 ml to top of rim. 2700 ml to base of rim. (Fig. 14.1)
MP 95140 – 3000 ml to top of rim. 2800 ml to base of rim. (Fig. 13:4)

BEER JARS WITH FLAT BASES (FIGS 9–14)

level two

- 9:1 Beer Jar, MP 93117. Locus AL M III 5c. Restored. Rim: 9 cm. Finger impressions on base.
- 9:2 Beer Jar, MP 94309. Locus AL M III 5b. Restored. Rim: 8 cm. Finger impressions on base.
- 9:3 Beer Jar, MP 93075. Locus AL M III 5b. Restored. Rim: 8.5 cm. Sharp wheelmarks. Finger impressions on base.
- 9:4 Beer Jar, MP 93120. Locus AL M III 5c. Restored. Rim: 10 cm. Sharp wheelmarks. Finger impressions on base.
- 9:5 Beer Jar, MP 93118. Locus AL N I 28. Restored. Rim: 9 cm. Sharp wheelmarks.
- 9:6 Beer Jar, MP 93175. Locus AL M III 5b. Restored. Rim: 7.5 cm. Finger impressions on base.
- 9:7 Beer Jar, MP 93068. Locus AL M III 5b. Restored. Rim: 8.3 cm. Finger impressions on base.
- 9:8 Beer Jar, MP 93100. Locus AL N I 28. Restored. Rim: 8.5 cm. Sharp wheelmarks. Finger impressions on base.

level four

- 10:1 Beer Jar, MP 93129. Locus AL N I 44. Intact. Rim: 8.5 cm. Sharp wheelmarks. Finger impressions on base.
- 10:2 Beer Jar, MP 94259. Locus AL N V 7. Restored. Rim: 8.5 cm. Finger impressions on base.
- 10:3 Beer Jar, MP 93206. Locus AL N I 44. Restored. Rim: 7.5 cm. Sharp wheelmarks. Finger impressions on base.
- 10:4 Beer Jar, MP 93154. Locus AL N I 46. Intact. Rim: 8.5 cm. Gentle finger impressions on base.
- 10:5 Beer Jar, MP 93155. Locus AL N I 46. Restored. Rim: 8.5 cm. Surface: Self slip. Sharp wheelmarks.
- 10:6 Beer Jar, MP 93180. Locus AL N I 44. Restored. Rim: 9 cm. Vertical knife paring on base.
- 10:7 Beer Jar, MP 93211. Locus AL N I 46. Restored. Rim: 9 cm. Sharp wheelmarks. Finger impressions on base.
- 11:1 Beer Jar, MP 94256. Locus AL N V 7. Restored. Rim: 8.5 cm. Finger impressions on base.
- 11:2 Beer Jar, MP 94258. Locus AL N V 7. Restored. Rim: 8.5 cm. Finger impressions on base.
- 11:3 Beer Jar, MP 94257. Locus AL N V 7. Restored. Rim: 9 cm. Finger impressions on base.
- 11:4 Beer Jar, MP 94255. Locus AL N V 7. Restored. Rim: 8 cm. Finger impressions on base.
- 11:5 Beer Jar, MP 94274. Locus AL N V 7. Restored. Rim: 8.5 cm. Finger impressions on base.
- 11:6 Beer Jar, MP 93208. Locus AL N I 46. Restored. Rim: 10.5 cm. Finger impressions on base.
- 11:7 Beer Jar, MP 94286. Locus AL N V 7. Restored. Rim: 8.5 cm. Finger impressions on base.

area AL SW

- 12:1 Beer Jar, MP 95163. Locus AL SW VIIA 21. Restored. Rim: 8 cm. Surface: Red slip traces on exterior.
Sharp wheelmarks. Finger impressions on base. Capacity: 2600 ml to top of rim.
- 12:2 Beer Jar, MP 95025. Locus AL SW VIIA 21. Restored. Rim: 7.5 cm. Sharp wheelmarks.
- 12:3 Beer Jar, MP 95120. Locus AL SW VIIA 21. Restored. Rim: 8.5 cm. Sharp wheelmarks. Finger impressions on base.
- 12:4 Beer Jar, MP 95048. Locus AL SW VIIA 21. Partially restored. Rim: Missing. Sharp wheelmarks. Finger impressions on base.
- 12:5 Beer Jar, MP 95115. Locus AL SW VIIA 21. Restored. Rim: 8.5 cm. Sharp wheelmarks. Finger impressions on base.
- 12:6 Beer Jar, MP 95061. Locus AL SW VIIA 21. Restored. Rim: 9 cm. Sharp wheelmarks. Deep finger impressions on base.
Parallel: Aston, 1996, fig. 194a.
- 12:7 Beer Jar, MP 95064. Locus AL SW VIIA 21. Restored. Rim: 8 cm. Sharp wheelmarks. Finger impressions on base.
- 12:8 Beer Jar, MP 95108. Locus AL SW VIIA 21. Restored. Rim: 7.6 cm. Finger impressions on base.
- 13:1 Beer Jar, MP 95135. Locus AL SW VIIA 21. Restored. Rim: 9 cm. Finger impressions on base.
- 13:2 Beer Jar, MP 95014. Locus AL SW VIIA 21. Restored. Rim: 8.5 cm. Sharp wheelmarks.
- 13:3 Beer Jar, MP 95053. Locus AL SW VIIA 21. Restored. Rim: 10 cm. Sharp wheelmarks. Deep finger impressions on base.
- 13:4 Beer Jar, MP 95140. Locus AL SW VIIA 21. Restored. Rim: 8.5 cm. Sharp wheelmarks. Capacity: 3000 ml to top of rim.
- 13:5 Beer Jar, MP 95084. Locus AL SW VIIA 21. Restored. Rim: 9 cm. Sharp wheelmarks. Deep finger impressions around base.
- 13:6 Beer Jar, MP 95126. Locus AL SW VIIA 21. Restored. Rim: 8.5 cm. Sharp wheelmarks. Finger impressions on base.
- 13:7 Beer Jar, MP 95067. Locus AL SW VIIA 21. Restored. Rim: 8.5 cm. Sharp wheelmarks. Finger impressions on base.

level five

- 14:1 Beer Jar, MP 94260. Locus AL N II 30. Restored. Rim: 9 cm. Finger impressions on base. Capacity: 3000 ml to top of rim.
- 14:2 Beer Jar, MP 93186. Locus AL N II 30. Restored. Rim: 10.5 cm. Surface: Red slip traces on bottom third of jar.

BEER JARS WITH PERFORATED BASES (FIGS 14–16)

Nineteen of the eighty-eight beer jars have perforations in their bases that were deliberately made before firing. The reason for these holes, however, is not satisfactorily understood. This sub-group exhibits the same range of variations as the jars with whole bases and is therefore dated on the same criteria to the Twentieth Dynasty.

BEER JARS WITH ROUND, PERFORATED BASES (FIG 14)

Three beer jars have round bases rather than the more common flat crude bases with finger impressions. They are similar in shape to the flat-based types and like some of these vessels had pre-fired, perforated bases. One jar also had vertical knife paring at the base. These round-based examples have only recently been recognized and published and it is hoped that these whole examples will aid in the identification of incomplete vessels.

level two

14:3 Beer Jar, MP 93147. Locus AL M III 5c. Restored. Rim: 8.5 cm. Base perforated.

level four

14:4 Beer Jar, MP 94273. Locus AL N V 7. Restored. Rim: 8 cm. Base perforated.

Vertical knife paring on base.

Parallel: Aston, 1998, p. 182, 183:522.

14:5 Beer Jar, MP 93204. Locus AL N I 46. Restored. Rim: warped 9 cm. Base perforated.

14:6 Beer Jar, MP 93138. Locus AL N I 46. Restored. Rim: 9.5 cm. Base perforated.

Vertical knife paring on base.

Parallel: Aston, 1998, p. 182, 183:521.

BEER JARS WITH FLAT, PERFORATED BASES (FIGS 15–16)

level two

15:1 Beer Jar, MP 93078. Locus AL M III 5c. Restored. Rim: 9 cm. Sharp wheelmarks. Base perforated.

15:2 Beer Jar, MP 93087. Locus AL M IV 4b. Restored Rim: 9 cm. Finger impressions around base. Base perforated.

15:3 Beer Jar, MP 94308. Locus AL M III 5c. Restored. Rim: 10 cm. Base perforated.

15:4 Beer Jar, MP 93077. Locus AL M III 5b. Restored. Rim: 9.5 cm. Finger impressions on base. Base perforated.

15:5 Beer Jar, MP 93140. Locus AL M III 5b. Restored. Rim: 9.5 cm. Sharp wheelmarks. Base perforated.

15:6 Beer Jar, MP 93159. Locus AL M III 5c. Restored. Rim: 9.5 cm. Sharp wheelmarks. Finger impressions on base. Base perforated.

15:7 Beer Jar, MP 93080. Locus AL M III 5c. Restored. Rim: 10.5 cm. Finger impressions on base. Base perforated.

level three

16:1 Beer Jar, MP 94261. Locus AL N I 41. Partially restored. Rim: 9 cm. Base perforated.

16:2 Beer Jar, MP 93187. Locus AL N II 28. Restored. Rim: 9 cm. Soot. Finger impressions on base. Base perforated.

level four

16:3 Beer Jar, MP 93202. Locus AL N I 44. Restored. Rim: warped 7–9 cm. Base perforated.

area AL SW

16:4 Beer Jar, MP 95098. Locus AL SW VIIA 21. Restored. Rim: 9 cm. Finger impressions on base. Base perforated.

16:5 Beer Jar, MP 95078. Locus AL SW VIIA 21. Restored. Rim: 9 cm. Sharp wheelmarks. Base perforated.

16:6 Beer Jar, MP 95114. Locus AL SW VIIA 21. Restored. Rim: 9 cm. Sharp

wheelmarks. Base perforated.

16:7 Beer Jar, MP 95083. Locus AL SW VIIA 21. Restored. Rim: 8 cm. Sharp wheelmarks. Finger impressions on body and base. Base perforated.

16:8 Beer Jar, MP 95099. Locus AL SW VIIA 21. Restored. Rim: 9 cm. Sharp wheelmarks. Finger impressions on body and base. Base perforated.

LOBULAR JARS (FIGS 17–26)

A large proportion (31.5%) of the total assemblage are jars with globular or ovoid bodies. They occur in various sizes, all with a vertical neck and a carination at the shoulder. It is difficult to know the function of these jars but the presence of soot on the bodies suggests a cooking vessel. Made from local Medium Nile Silt clay, the fired vessels range in colour from drab brown to a rusty orange. Many of the jars exhibit a red or cream slip and in many cases a particular rim will correlate to a particular surface treatment. They are categorized here according to their rim type.

VERTICAL-NECKED JARS WITH DIRECT RIMS (FIGS 17–19)

Vertical-necked jars are very long-lived and ubiquitous during the New Kingdom and Third Intermediate Period and therefore less useful for exact dating purposes. These vessels are often called cooking pots as many of them are found covered in soot. The average height of our vessels is between 20 and 30 cm but smaller and larger examples are also present in the corpus. The jars are usually coated with a streaky cream slip, occasionally with pink patches. At least three of these pots contained bones of a small type of fish along with a black tar-like substance which may have been added as a preservative or some kind of sauce.

level one

Jar, Locus AL N I 11. (Not illustrated). Not restored. Rim: Missing. Soot on exterior.

Jar, Locus AL N I 11. (Not illustrated). Not restored. Rim: Missing. Soot on exterior. Contents include small fish bones and a black tar-like substance.

Jar, Locus AL N I 11. (Not illustrated). Not restored. Rim: Missing. Soot on exterior. Contents included small fish bones and a black tar-like substance.

level two

17:1 Jar, MP 93166. Locus AL N I 33. Restored. Rim: 10 cm. Surface: Cream slip.

17:2 Jar, MP 93104. Locus AL N I 27. Restored. Rim: 13 cm. Soot on body.

Parallels: Aston, 1998, p. 567, no. 2321 and p. 581, no. 2378. Both dated to the 20th–21st Dynasties.

17:3 Jar, MP 93258. Locus AL N I 34. Intact. Rim: 8 cm. Uncommon flat base.

17:4 Jar, MP 93156. Locus AL N I 29. Partially restored. Rim: Missing.

17:5 Jar, MP 93179. Locus AL N II 18. Partially restored. Rim: Missing.

17:6 Jar, MP 93115. Locus AL N II 16. Partially restored. Rim: Missing.

level three

18:1 Jar, MP 93184. Locus AL N I 48. Partially restored. Rim: Missing. Surface: Streaky cream slip.

level four

18:2 Jar, MP 94272. Locus AL N I 44. Restored. Rim: 9.5 cm. Surface: Cream slip.

18:3 Jar, MP 93148. Locus AL N II 26. Restored. Rim: 10 cm.

18:4 Jar, MP 93224. Locus AL N I 44. Intact. Rim: 10.5 cm. Soot covers body.

18:5 Jar, MP 93170. Locus AL N I 44. Partially restored. Rim: Missing. Surface: Streaky cream slip.

area AL SW

19:1 Jar, MP 95006. Locus AL SW VIIA 21. Restored. Rim: 9.5 cm.

19:2 Jar, MP 95136. Locus AL SW VIIA 21. Restored. Rim: 12 cm.

19:3 Jar, MP 95002. Locus AL SW VIIA 21. Intact. Rim: 10 cm. Surface: Cream slip. Contents include fish bones and a black tar-like substance. Black tar-like drops on exterior.

19:4 Jar, MP 95079. Locus AL SW VIIA 21. Restored. Rim: 9 cm. Surface: Wet-smoothed.

19:5 Jar, MP 95029. Locus AL SW VIIA 21. Partially restored. Rim: Missing. Surface: Cream slip. Soot on bottom half of vessel.

19:6 Jar, MP 95124. Locus AL SW VIIA 21. Restored. Rim: 10 cm. Soot covers body.

19:7 Jar, MP 95028. Locus AL SW VIIA 21. Partially restored. Rim: Missing. Surface: Peach and cream slip.

19:8 Jar, MP 95017. Locus AL SW VIIA 21. Partially restored. Rim: Missing. Two perforations on shoulder for rope handles and one hole near base.

JARS WITH MODELLED RIMS AND COLLARED NECKS (FIGS 20–22)

Storage jars with a modelled rim and a collar of clay encircling the neck where it joins the shoulder appear initially in the Nineteenth Dynasty and increase in popularity into the Twentieth Dynasty. At Mendes these globular or oval bodied jars range in height from 26 to 42 cm and come in small, medium and large sizes. Most of the jars were coated with a thick red slip making them suitable for storing liquids as well as dry goods. The general absence of soot on these vessels indicates that they were not used as cooking pots. One jar (Fig. 21:4) retained a clay sealing plug and was half filled with gray ash and cereal grains confirming its use as a storage jar. A few of these jars clustering in level four have round bases with very distinct inner ledges, the function or significance of which remains unknown.

level one

20:1 Jar, MP 93123. Locus AL N I 11. Restored. Rim: 9 cm. Surface: Red slip.

Parallels: Aston, 1996. fig. 197:c. Phase I. Aston, 1999, p. 46, vessel 39. The jar was found at Qantir in Stratum Bb that dates to the time period between Seti II and Ramesses III.

level two

20:2 Jar, MP 93114. Locus AL N I 27. Restored. Rim: 8.5 cm. Surface: Wet-smoothed.

20:3 Jar, MP 93110. Locus AL N II 16. Intact. Rim: 9.5 cm. Surface: Orange slip.

Parallel: Aston, 1999, p. 50, vessel 67. The jar was found at Qantir in Stratum Bb that dates to the time period between Seti II and Ramesses III.

20:4 Jar, MP 93113. Locus AL N II 16. Restored. Rim: 10 cm. Surface: Wet-smoothed.

level three

20:5 Jar, MP 93189. Locus AL N I 47. Partially restored. Rim: missing. Surface: Reddish orange slip.

level four

21:1 Jar, MP 93162. Locus AL N I 46. Intact. Rim: 8 cm. Surface: Reddish orange slip.

21:2 Jar, MP 95129. Locus AL N V 7. Restored. Rim: 10.5 cm.

21:3 Jar, MP 93172. Locus AL N I 46. Intact. Rim: 8.5 cm. Surface: Wet-smoothed.

21:4 Jar, MP 94242. Locus AL N V 7. Intact. Rim: 10 cm. Surface: Red slip. Retained clay plug. Contents include gray ash and cereal grains.

21:5 Jar, MP 93158. Locus AL N I 46. Restored. Rim: 10.5 cm. Surface: Red slip.

area AL SW

22:1 Jar, MP 95167. Locus AL SW VIIA 21. Restored. Rim: 10 cm. Surface: Red slip.

22:2 Jar, MP 95132. Locus AL SW VIIA 21. Partially restored. Rim: Missing. Soot on exterior body.

JARS WITH MODELLED RIMS (FIGS 22–23)

level one

22:3 Jar, MP 93143. Locus AL N I 11/II 7. Partially restored. Rim: 9 cm.

level two

22:4 Jar, MP 93094. Locus AL N I 25. Restored. Rim: 10 cm. Surface: Orange slip.

Parallel: Aston, 1996, fig:197:d. Phase I.

22:5 Jar, MP 93124. Locus AL N I 31. Restored. Rim: 9 cm. Surface: Wet-smoothed.

level three

23:1 Jar, MP 93198. Locus AL N I 28. Restored. Rim: 12 cm. Surface: Wet-smoothed.

level four

23:2 Jar, MP 94267. Locus AL N V 7. Restored. Rim: 9 cm. Surface: Wet-smoothed.

area AL SW

23:3 Jar, MP 95005. Locus AL SW VIIA 21. Incomplete. Rim: Missing. Surface: Red slip.

23:4 Jar, MP 95042. Locus AL SW VIIA 21. Restored. Rim: 10 cm. Surface: Red slip.

23:5 Jar, MP 95168. Locus AL SW VIIA 21. Partially restored. Rim: Missing. Surface: Red slip.

JARS WITH THICKENED INNER RIMS (FIG. 24)

Jars with thickened inner rims represent a new form in the Twentieth Dynasty and are most characteristic of Aston's Phase I.²¹ At Mendes these globular-shaped jars predominate with streaky cream slip, often with pinky orange patches. They come in small, medium and large sizes with heights that range from under 20 cm up to 40 cm. As they are often found coated with soot they were most likely used as

cooking vessels.

level two

24:1 Jar, MP 93116. Locus AL N II 16. Restored. Rim: 11 cm. Soot on exterior and inside rim.

24:2 Jar, MP 93112. Locus AL N I 27. Restored. Rim: 14 cm. Surface: Streaky cream slip.

24:3 Jar, MP 93257. Locus AL N I 24. Intact. Rim: 10.5 cm.

24:4 Jar, MP 93192. Locus AL N II 18. Restored. Rim: 10 cm. Soot covered body.

level three

24:5 Jar, MP 93171. Locus AL N II 21. Restored. Rim: warped 10–12 cm.

area AL SW

24:6 Jar, MP 95070. Locus AL SW VIIA 21. Restored. Rim: 11 cm. Surface: Streaky cream slip. Soot traces on body.

24:7 Jar, MP 95032. Locus AL SW VIIA 21. Restored. Rim: 11 cm. Soot traces on body.

24:8 Jar, MP 95105. Locus AL SW VIIA 21. Restored. Rim: 11.5 cm. Soot traces.

FUNNEL-NECKED JARS (FIG. 25)

The Twentieth Dynasty's preference for slimmer bodies and higher necks is reflected in the five long-necked jars (related to Holthoer's classification of funnel-necked jars) of the assemblage. These jars are very common at many Eighteenth Dynasty sites but become less popular during the Twentieth Dynasty and eventually disappear by the Third Intermediate Period. Only two of these vessels were coated with a red slip. Fish bones were found in one of these jars. (Fig. 25:6).

level two

25:1 Jar, MP 93197. Locus AL N I 30. Restored. Rim: 10 cm. Surface: Red slip.

Parallel: Aston, 1996, fig. 194:c. Phase I.

25:2 Jar, MP 93213. Locus AL M IV 7. Partially restored. Rim: Missing. Surface: Red slip

25:3 Jar, MP 93195. Locus AL N I 49. Restored. Rim: 8.5 cm. Surface: Wet-smoothed.

Parallel: Aston, 1996, fig. 194:d. Phase I.

level four

25:4 Jar, MP 94236. Locus AL N V 7. Partially restored. Rim: Missing.

25:5 Jar, MP 94302. Locus AL N I (?). Partially restored. Rim: Missing. Surface: Red slip.

area AL SW

25:6 Jar, MP 95004. Locus AL SW VIIA 21. Restored. Rim: 10 cm. Unusual undulating neck. Fish bones were found in the sample taken from this vessel.

TWO-HANDLED JARS (FIG. 26)

Two-handled jars seem rare in the New Kingdom. Most of the Mendes examples, all of which were found in locus ALSW VIIA 21, were coated with soot suggesting that they were originally used as cooking pots. A similar fragment of a two-handled jar with cream slip over the

rim was discovered in a well-dated late Nineteenth Dynasty context during the 2006 excavation season at the Mortuary Temple of Tausert at Luxor.²²

area AL SW

26:1 Two-Handled Jar, MP 95121. Locus AL SW VIIA 21. Restored. Rim: 8.5 cm.

Surface: Cream slip. Soot on lower half of body.

26:2 Two-Handled Jar, MP 95093. Locus AL SW VIIA 21. Partially restored. Rim: 13 cm. Surface: Cream slip.

Soot on base.

26:3 Two-Handled Jar, MP 95001. Locus AL SW VIIA 21. Partially restored. Rim: Missing. Surface: Thick cream slip.

26:4 Two-Handled Jar, MP 95036. Locus AL SW VIIA 21. Restored. Rim: 7.5 cm.

Soot covered body.

SMALL JARS (FIG. 26)

The small jars at Mendes are all versions of the large vessels with the vertical-necked jar with direct rim and the jar with a thickened inner rim being the most common forms.

level three

26:5 Small Jar, MP 93121. Locus AL N II 21. Intact. Rim: 9.5 cm. Soot on bottom half of vessel.

26:6 Small Jar, MP 93151. Locus AL N I 47. Intact, Rim: 8 cm. Soot on body.

level four

26:7 Small Jar, MP 93130. Locus AL N I 44. Intact. Rim: 6.5 cm. Surface: Cream slip.

area AL SW

26:8 Small Jar, MP 95086. Locus AL SW VIIA 21. Incomplete. Rim: Missing. Surface: Cream slip.

26:9 Small Jar, MP 95054. Locus AL SW VIIA 21. Incomplete. Rim: Missing. Surface: Soot on body.

26:10 Small Jar, MP 95046. Locus AL SW VIIA 21. Restored. Rim: 5.5 cm. Surface: Cream slip. Black stain on interior.

26:11 Small Jar, MP 95033. Locus AL SW VIIA 21. Restored. Rim: 6 cm.

26:12 Small Jar, MP 95030. Locus AL SW VIIA 21. Incomplete. Rim: Missing. Surface: Cream slip.

CYLINDRICAL JARS (FIGS 27–30)

Six percent of the Mendes assemblage is long cylindrical storage jars. The Medium Nile Silt ware of these vessels was fired to colours ranging from brown to orange with a pink or grey core. Eight of the fifteen jars studied had traces of red slip on the surface. They occur in two basic sizes: large (60–72 cm high) and medium (49–59 cm high). The flotation sample from the large vessel MP 94294 (Fig. 29:1), which had a capacity of eleven litres, contained grains of barley.

Another large jar, MP 93183 (Fig. 28:1), contained fish bones. Some of these storage jars may have contained a stew or nourishing liquid that attracted the roots that were often found densely coiled inside the jars. This vessel type has its origin in the much broader, ovoid storage jars or zirs of the Eighteenth and Nineteenth Dynasties. Although the tall slender vessel is attested in the Nineteenth Dynasty,²³ its popularity increases in the Twentieth Dynasty (Aston's Phase I) and is very common in Upper Egypt in well-dated contexts of the Twentieth and Twenty-First Dynasties. A cylindrical jar was included in a foundation deposit of Ramesses IV discovered in the vicinity of the mortuary temple of Ramesses III at Medinet Habu.²⁴ At Elephantine an even more firmly dated parallel was found bearing a hieratic docket dated to the reign of Ramesses IX.²⁵ This form becomes very popular in the Late Period where it evolves into a long undulating vessel.

level two

27:1 Cylindrical Jar, MP 93205. Locus AL N I 30. Restored. Rim: 9 cm.

27:2 Cylindrical Jar, MP 93142. Locus AL N I 29. Partially restored. Rim: 11 cm.

Surface: Red slip traces.

27:3 Cylindrical Jar, MP 93176. Locus AL N I 27. Restored. Rim: 9 cm.

27:4 Cylindrical Jar, MP 93203. Locus AL N I 24. Restored. Rim: 9.5 cm.

level three

28:1 Cylindrical Jar, MP 93183. Locus AL N II 21. Restored. Rim: 10 cm. Surface: Red slip. Contents include fish bones.

Parallel: Aston 1999a. pl. 9:198. This vessel from Elephantine bears an inscription dated to the reign of Ramesses IX.

level four

28:2 Cylindrical Jar, MP 94297. Locus AL N V 7. Partially restored. Rim: 10 cm.

28:3 Cylindrical Jar, MP 93177. Locus AL N I 44. Partially restored. Rim: Missing. Surface: Red slip.

29:1 Cylindrical Jar, MP 94294. Locus AL N V 7. Restored. Rim: 9.5 cm. Surface: Red slip. Contents include grains of barley. Capacity: 11 litres.

Parallel: Aston, Aston and Brock, pl. 43:373. A vessel similar to the Mendes example was found in the tomb of Ramesses VII in the Valley of the Kings at Thebes.

29:2 Cylindrical Jar, MP 94310. Locus AL N V 7. Partially restored. Rim: Missing. Surface: Red slip.

29:3 Cylindrical Jar, MP 94295. Locus AL N V 7. Restored. Rim: 9 cm. Surface: Red slip.

area AL SW

29:4 Cylindrical Jar, MP 95145. Locus AL SW VIIA 21. Partially restored. Rim: Missing.

30:1 Cylindrical Jar, MP 95156. Locus AL SW VIIA 21. Restored. Rim: 11.5 cm. Surface: Red slip.

30:2 Cylindrical Jar, MP 95003. Locus AL SW VIIA 21. Restored. Rim: 10 cm.

30:3 Cylindrical Jar, MP 95169. Locus AL SW VIIA 21. Restored. Rim: 12 cm. Surface: Red slip.

Cylindrical Jar, (unregistered). Locus AL SW VIIA 21. (Not illustrated).

BOWLS (FIG. 31)

Bowls are surprisingly rare in the deposits at Mendes with only 8 examples recovered; all made from Nile Silt. Three of these vessels cluster in level 5 and three in square ALSW. Level five is just above a Middle Kingdom stratum and some intrusive sherds would not be unexpected. Round-based, generally unslipped bowls with a wide red-slipped band on the interior rim and a narrow red-slipped band on the exterior rim (Fig. 31:7) become more prominent in the late Nineteenth and Twentieth Dynasties²⁶ and red-slipped and burnished bowls (Fig. 31:1) are also common during this time period.

level three

- 31:1 Bowl, MP 93160. Locus AL N I 47. Intact. Rim: 28 cm. Surface: Red slip and burnished interior; red slip exterior.
- 31:2 Bowl, MP 93152. Locus AL N I 47. Incomplete. Rim: Missing. Surface: Red slip. *Parallels:* Aston, 1996, fig.191:i and j. Phase I. These vessels from Qantir and Memphis have one handle and are called 'chamber pots' by Aston. The Mendes example has a similar base and body but lacks the upper portion and any traces of handles for proper comparison.

level five

- 31:3 Bowl, MP 93185. Locus AL N I 50. Restored. Rim: 36 cm. Surface: Thick gray slip; red slip traces on rim.
- 31:4 Bowl, MP 93169. Locus AL N II 30. Fragment. Rim: 22 cm.
- 31:5 Bowl, MP 93193. Locus AL N I 50. Restored. Rim: 21 cm. Surface: Three incised horizontal lines below rim. (Possibly an intrusive Middle Kingdom vessel.)

area AL SW

- 31:6 Bowl, MP 95027. Locus AL SW VIIA 21. Fragment. Surface: Red slip interior.
- 31:7 Bowl, MP 95031. Locus AL SW VIIA 21. Fragment. Rim: 17 cm. Surface: Wide red slip band on interior rim; narrow red slip band on exterior rim. *Parallels:* Aston, 1998, p. 603, nos. 2472, 2478, 2479. All are dated to the 20th Dynasty.

AMPHORAE/STORAGE JARS (FIG. 32)

Amphorae and "meat"²⁷ jars are two of the most common types of vessels found at late New Kingdom sites throughout Egypt. In the ceramic stratum at Mendes, however, they represent only two percent of the total assemblage. The larger vessels were made of Medium Nile Silt which was coated in streaky cream slip with occasional pink patches. The ware of the small amphora was denser and much harder

as well as being tempered with white specks, and matched more closely Marl D ware or J. Bourriau's Mixed Clay ware (category G6b).²⁸ This latter fabric becomes increasingly popular in the Twentieth Dynasty. The slender amphorae with round bases and high necks are very characteristic of Twentieth and Twenty-First Dynasty assemblages. The addition of handles to the large neckless storage jar (meat jar) is a typical innovation of the late New Kingdom.²⁹

level two

32:1 Two-handed "Meat Jar," MP 93092. Locus AL N I 24. Restored. Rim: 16 cm.

Surface: Streaky pale orange slip.

Parallel: Aston, 1996, fig. 205e. Phase I. From Medinet Habu.

32:5 Storage Jar, MP 93230. Locus AL M 111 5c. Partially restored. Rim: Missing.

Surface: Streaky cream slip with pink patches. Found with the group of beer jars in the shallow brick enclosure.

Parallels: Aston, 1999, p. 43 and 44, vessel 13. From Strata Bb dated to the time period from Seti II to Ramesses III. Hope, 1989, p. 94, fig. 3:1 and 2. Dated to the 19th–20th Dynasties.

level three

32:4 Amphora, MP 93199. Locus AL N I 48. Incomplete. Rim: 11 cm. Surface:

Streaky cream slip.

Parallel: Aston, 1996, fig. 199c. Phase I.

area AL SW

32:2 Small Amphora, MP 95066. Locus AL SW VIIA 21A. Incomplete. Rim: Missing.

Ware: Mixed Clay.

Surface: Cream slip. Black tar-like substance has left stains on the neck.

Parallels: Aston, 1996, figs. 202:h, i and j. Phase I.

32:3 Amphora, MP 95045. Locus AL SW VIIA 21A. 07. Incomplete.

Parallel: Hope, 1989, fig. 4:7, type 1b. Dated to the 19th–20th Dynasties.

MISCELLANEOUS VESSELS (FIG. 33)

The remaining vessels include pitchers, juglets, cups, decorated jars, fish-shaped jars and vessels that occur singly or in very small numbers. Constituting only 4% of the corpus these vessels hint at an attempt to add luxury to the assemblage. It is very interesting to note that although many of these vessels are based on costly, well-made prototypes they are predominately made of the cheaper Nile Silt clay.³⁰

PITCHERS AND JUGLETS (FIG. 33)

The one pitcher found in the corpus appears to be a rare form since exact parallels were difficult to find. However, the small wide-mouthed juglets, which often have flat bases and ring-shaped handles, are found on many New Kingdom sites. The form was undoubtedly

inspired by Palestinian and Cypriot prototypes that were popular in the Eastern Mediterranean in the late Eighteenth and Nineteenth Dynasties. Two of our three examples were manufactured from Marl clays.

level two

33:1 Pitcher, MP 93102. Locus AL N II 16. Intact. Rim: 10 cm with a pouring lip. Surface: Red slip traces.

Parallels: Peet and Woolley, pl. LIII:LXXIII:168. Amarna. Large pitchers are unusual and most parallels have a flat base unlike the Mendes vessel. Aston, 1999, no. 45 has a round base but a very tiny handle. The Mendes example matches more closely the style of LBII Palestinian jugs.

33:2 Juglet, MP 93101. Locus AL N I 31. Intact. Rim: 5 cm. Ware: Marl D. Surface: Thick cream slip.

Parallels: Aston, 1996, p. 298, fig. 196h. Aston places this juglet from Elephantine in his Phase I dated to the 20th Dynasty. Holthoer, pl. 20, (JU 1 ordinary juglets). Bourriau and Nicholson, fig. 3:5. Although this example in Marl D from Memphis/Saqqarra has a flat disc base it resembles the Mendes juglet in other respects.

level four

33:3 Juglet, MP 93149. Locus AL N II 25. Partially restored. Rim: missing. Ware: Marl D. Surface: Thick cream slip.

area AL SW

33:4 Juglet, MP 95131. Locus AL SW VIIA 21. Restored. Rim: 8 cm. Surface: Pinkish cream slip.

CHALICES

level two

33:5 Chalice, MP 93109. Locus ALN I 31. Partially restored. Rim: 15 cm. Surface: Wet-smoothed.

Parallel: Hope, 1989, "Ramesside Pottery," fig 7:j.

33:6 Chalice, MP 93164. Locus AL N I 48. Restored. Rim: 11 cm.

area AL SW

33:7 Chalice, MP 95043. Locus AL SW VIIA 21. Fragment.

MISCELLANEOUS JARS

33:8 Spindle Jar, MP 95069. Locus AL SW VIIA 21. Incomplete. Rim: 5.5 cm. Surface: Plum-red slip.

Parallel: Peet and Woolley, pl. L:XXXIX/9. Amarna.

33:9 Jarlet, MP 95015. Locus AL SW VIIA 21. Intact. Rim: 4.5 cm. Surface: Red slip.

33:10 Jarlet, MP 95087. Locus AL SW VIIA 21. Intact. Rim: 10 cm. Surface: Orange slip.

level two

Jar, MP 93255. Locus AL N I 34. (Not illustrated). Restored. Rim 7.5 cm. Surface: Red slip.

FISH-SHAPED JARS (FIG. 34)

Three very unusual fish-shaped jars were found in adjoining squares

ALM and ALN. All were made of Medium Nile Silt and one jar was decorated with depictions of a fish and a bird painted in blue, black and red. The only other published examples of such fish-shaped jars come from the stable complex of the Royal Horse Stud at Qantir in the East Delta where two fish jars, one showing traces of blue paint, were found in Stratum Bb. According to their excavator these vessels date to the time period between the reigns of Seti II and Ramesses III.³¹ Depictions of fish on other vessel types are not uncommon in the New Kingdom and Colin Hope has published photos of several examples from Amarna.³² The Mendes decorated fish-shaped jar was the only example of a blue-painted vessel in the corpus and its rarity is consistent with the decline of blue-painted wares towards the end of the Nineteenth and into the Twentieth Dynasty where the latest documented occurrence dates to the reign of Ramesses IV.³³

The flotation sample from the Mendes painted fish-shaped jar yielded fish bones that were identified as *schilbe* by Professor D. Brewer although the body of the jar depicts a tilapia fish. Fish products are the most frequent commodity found in the vessels of this deposit. The use of these fish-shaped jars and other jars containing fish as well as the numerous fragments of stelae bearing depictions of fish³⁴ strongly suggests a local religious practice involving certain fish species.³⁵ An ancient local fish goddess represented the Mendesian Nome and these jars containing fish were undoubtedly votive offerings to her.

level two

34:1 Fish-Shaped Jar, MP 93214. Locus AL M IV 7. Intact. Rim: 12. Height: 47 cm.

Surface: Thick red slip (Munsell 10R 5/8). The vessel has a flaring trumpet base similar to a fish tail and two horizontal fin-like handles that are arranged less than 180 degrees apart.

34:2 Fish-Shaped Jar, MP 93259. Locus AL N I 34. Partially restored. Rim: Missing.

Surface: Creamy pink slip (Munsell 7.5YR 8/4). The jar has a flaring base similar to a fish tail and two vertical fin-like handles that are arranged less than 180 degrees apart. One side is decorated with a marsh scene and the jar was obviously intended to be viewed only from the front. Multiple black bands on a blue background divide the scene into two registers and extend onto the blue painted fin-like appendages. The upper panel depicts a bird taking flight from the marsh and the lower panel depicts a tilapia fish swimming amongst the weeds. Both figures are painted blue with red and black highlights. Two broad horizontal red bands frame the bottom of the decorated panel. Contents included fish bones identified as *schilbe* by Prof. D. Brewer.

Parallels: Aston, 1999, jars 16 and 17.

level three

34:3 Fish-Shaped Jar, MP 93141. Locus AL N II 21. Partially restored. Rim: 4 cm.

Surface: Wet-smoothed. This fish-shaped jar is a mini version of the preceding jars but has the same fin-like projections applied less than 180 degrees apart along the sides. Unfortunately the base could not be restored.

34:4 Narrow Jar with flaring pedestal Base, MP 93163. Locus AL N II 21. Partially

CONCLUSION

Although originally divided into five stratigraphic levels, the Mendes corpus of whole vessels presented here was found to be homogenous in character, and therefore belongs to a single ceramic stratum. This stratum can be dated to the Twentieth Dynasty, using the following criteria:

(T)here are relatively few vessel forms in the corpus and most of them have parallels in Aston's Phase 1, dating from 1200 to 1000 B.C.

(C)ommon forms in the Mendes corpus, such as decanters and beer jars, are ubiquitous in the Eighteenth and Nineteenth Dynasties but reveal small characteristics that place them in the last years of their development before they totally disappear by the Third Intermediate Period. The Mendes corpus also contains new forms like the cylindrical vessels and the jars with the thickened inner rims, which begin in the late Ramesside Period and continue to flourish into the Third Intermediate Period. The coexistence of some ceramic forms at the end of their popularity along with new forms just beginning in the late Ramesside Period provides clear evidence for a Dynasty Twenty date for the Mendes corpus.

(T)he unique blue-painted fish-shaped jar made of Medium Nile Silt finds its only parallel in a similar jar discovered at Qantir which is dated to the time period between Seti II and Ramesses III.³⁶

(N)on-ceramic evidence is present in the form of a hieratic stela of Ramesses VI found in the same vicinity.

The features of this ceramic assemblage suggest that the essential function of the Mendes corpus of whole pots was the presentation of food and drink offerings to the local fish goddess Hat-Mehyet.³⁷ The discovery in this area of over twenty stelae decorated with fish reliefs supports the speculation that the deposit is in or near a sacred temenos area of a temple or shrine to this goddess. The predominance of fish bones in the contents of vessels with preserved remains also indicates appropriate fish offerings to the goddess. Six jars contained fish bones of which three contained fish bones as well as a black tarry stain. Eight jars had the black stain alone. Three jars held a few cereal grains. Many jars were also filled with tightly coiled roots indicating that the original contents may have been a nutritious, liquid food. A few fragments of long thin bread moulds were found in the fill around the vessels possibly indicating bread offerings to the goddess. This

corpus may represent a stash of vessels that had been presented to the priests at the shrine. After dedicating the offerings to the goddess, the priest may have emptied the contents of most vessels into the temple's coffers before carefully laying the vessels in a designated orientation in a disposal area. Speculation is interesting but the true reason for the existence of this large stratum of whole vessels remains shrouded in mystery.

The range of vessel forms in the assemblage is unusual. Predominant are small, medium and large jars and jar-like forms that would be suitable for storage, cooking, serving liquids and drinking. Bowls and platters are conspicuous by their absence, which is even more striking when one considers that during this period small bowls were commonly used as lids.³⁸ Generally the vessels are of poor quality. With perhaps the exception of three, all were produced from the cheaper local Nile Silt clay rather than the better quality Marl D clay. Vessels were also clumsily made, with many having been warped during firing. This may indicate that they were mass-produced in the neighborhood for sale to pilgrims and petitioners coming to worship the goddess. The emptying and storing of used vessels may have been done in haste especially if these were special offerings that occurred at a particularly busy festival. This could explain the mixed nature of the assemblage. The vessel types were not deposited in an orderly fashion with similar forms grouped together, but rather they were laid out in a random order. Great care, however, was taken to position the vessels with their mouths in a set orientation. This large corpus of whole vessels from a stratigraphically contained stratum should provide a welcome addition to the growing assemblage of Late New Kingdom pottery.

WORKS CITED

Aston 1996

David Aston, *Egyptian Pottery of the Late New Kingdom and the Third Intermediate Period (Twelfth – Seventh Centuries BC). Tentative Footsteps in a Forbidding Terrain*. Heidelberg: Heidelberg Orientverlag, 1996.

Aston 1998

David Aston, *Die Keramik des Grabungsplatzes. Q I. Teil 1, Corpus of Fabrics, Wares and Shapes*. Mainz, 1998.

Aston 1999

David Aston, "The Pottery from the Royal Horse Stud and its Stratigraphy," *Aegypten und Levante*: 1X (1999): 39–55.

Aston 1999a

David Aston, *Elephantine XIX Pottery from the Late New Kingdom to the early Ptolemaic Period*. *Archäologische Veröffentlichungen* 95. Philipp von Zabern, Mainz am

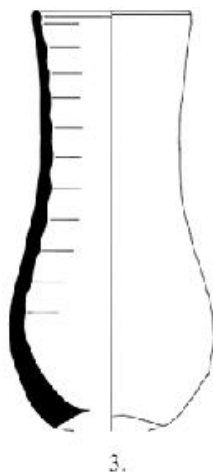
- Rhein, 1999.
- Aston, Aston and Brock
D.A. Aston, B.G. Aston and E.C. Brock, "Pottery from the Valley of the Kings Tombs of Merneptah, Ramesses III, Ramesses IV, Ramesses VI and Ramesses VII," *Aegypten und Levante*: VIII (1998): 137–214.
- Bourriau and Nicholson
J.D. Bourriau and P.T. Nicholson, "Marl Clay Pottery Fabrics of the New Kingdom from Memphis, Saqqara and Amarna," *The Journal of Egyptian Archaeology* 78 (1982): 29–91.
- Bourriau, Smith and Nicholson
J.D. Bourriau, L.M. Smith and P.T. Nicholson, *New Kingdom Pottery fabrics: Nile Clay and Mixed Nile/Marl Clay Fabrics From Memphis and Amarna*. The Egypt Exploration Society, London 2000.
- Holthoer
Rostislav Holthoer. *New Kingdom Pharaonic Sites: The Pottery*. The Scandinavian Joint Expedition to Sudanese Nubia: Vol 5:1 Berlings, Lund, 1977.
- Hope 1989
Colin A. Hope, *Pottery of the New Kingdom: Three Studies*. Victoria College, Archaeology Research Unit, Occasional Paper No. 2. Victoria, Australia, 1989.
- Hope 1991
Colin A. Hope, "Blue-Painted and Polychrome Decorated Pottery from Amarna: A Preliminary Corpus," *Cahiers de la Céramique égyptienne* 2 Institute Français D'Archeologie Orientale du Caire 1991:17–92.
- Nordström
Hans-Åke Nordström, "A Classification of the Wheel-Made Wares," in Rostislav Holthoer, *New Kingdom Pharaonic Sites: The Pottery*. The Scandinavian Joint Expedition to Sudanese Nubia: Volume 5:1 Berlings, Lund, 1997.
- Nordström and Bourriau
H.-Å. Nordström and J.D. Bourriau, *Ceramic Technology: Clays and Fabrics*, Fascicle 2 in D. Arnold and J.D. Bourriau (eds.), *An Introduction to Ancient Egyptian Pottery*. Mainz, 1993. 147–190.
- Peet and Woolley
T.E. Peet, and C.L. Woolley, *The City of Akhenaten Part I, Excavations of 1921 and 1922 at El Amarna*. EES Excavation Memoir 38, London, 1923.
- Petrie
W.M.F. Petrie, *Six Temples at Thebes 1896*, London, 1897.
- Redford
D.B. Redford, "Five years of Excavation at Mendes," *The Akhenaten Temple Project Newsletter*, No. 2 May. 1996.
- De Rodrigo
Alicia de Rodrigo, "Fish-shaped Jars from Mendes," in *Bulletin De Liaison Du Groupe International D'Étude De la Céramique Égyptienne*, XXI. Institut Français D'Archéologie Orientale, 2000. 7–12.



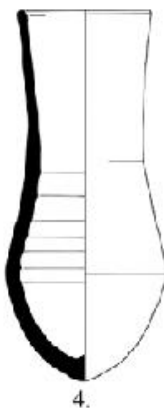
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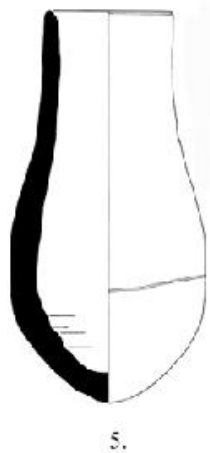
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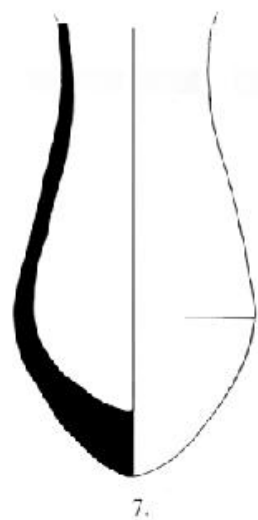
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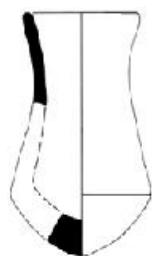
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1:4

FIG. 1. Decanters, levels two, three and four.



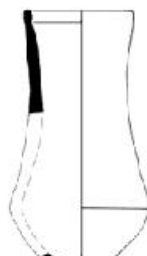
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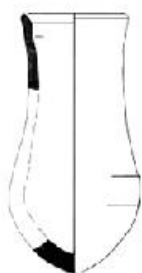
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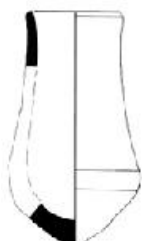
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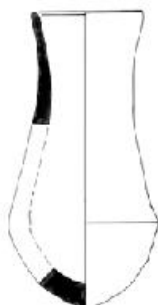
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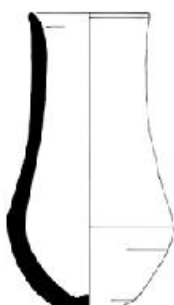
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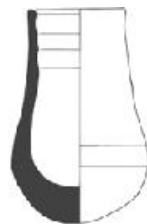
FIG. 2. Decanters, level two.



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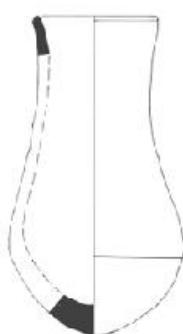
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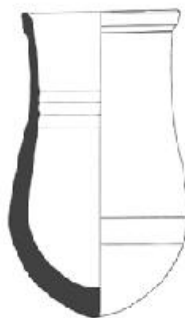
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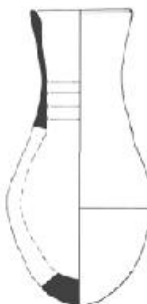
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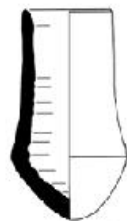
FIG. 3. Decanters, level three.



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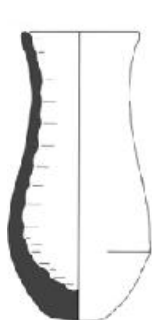
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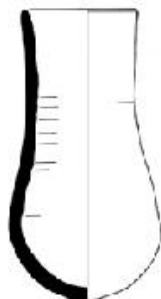
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1:4

FIG. 4. Decanters, level four.



1.



2.



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5.



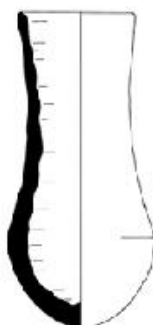
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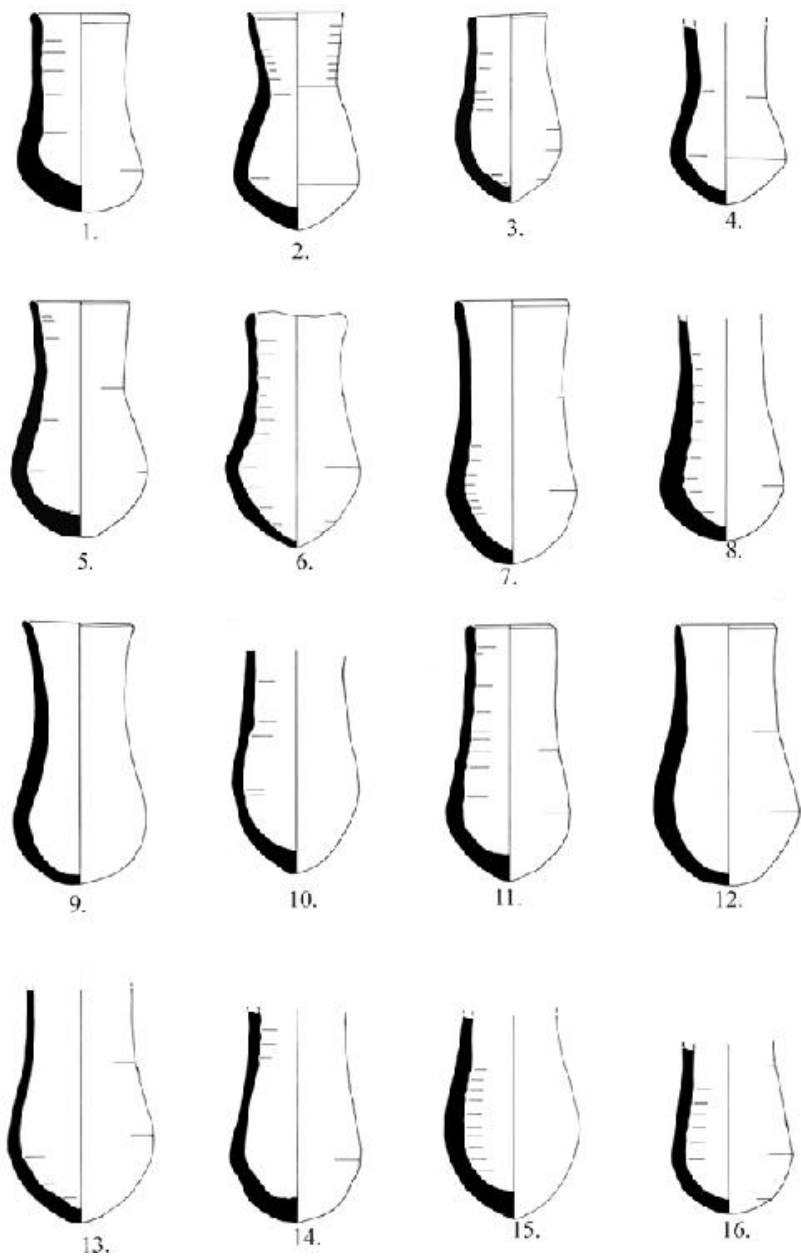
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FIG. 5. Decanters, area AL SW.

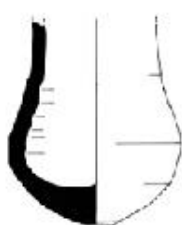


1:4

FIG. 6. Decanters, area AL SW.



1.



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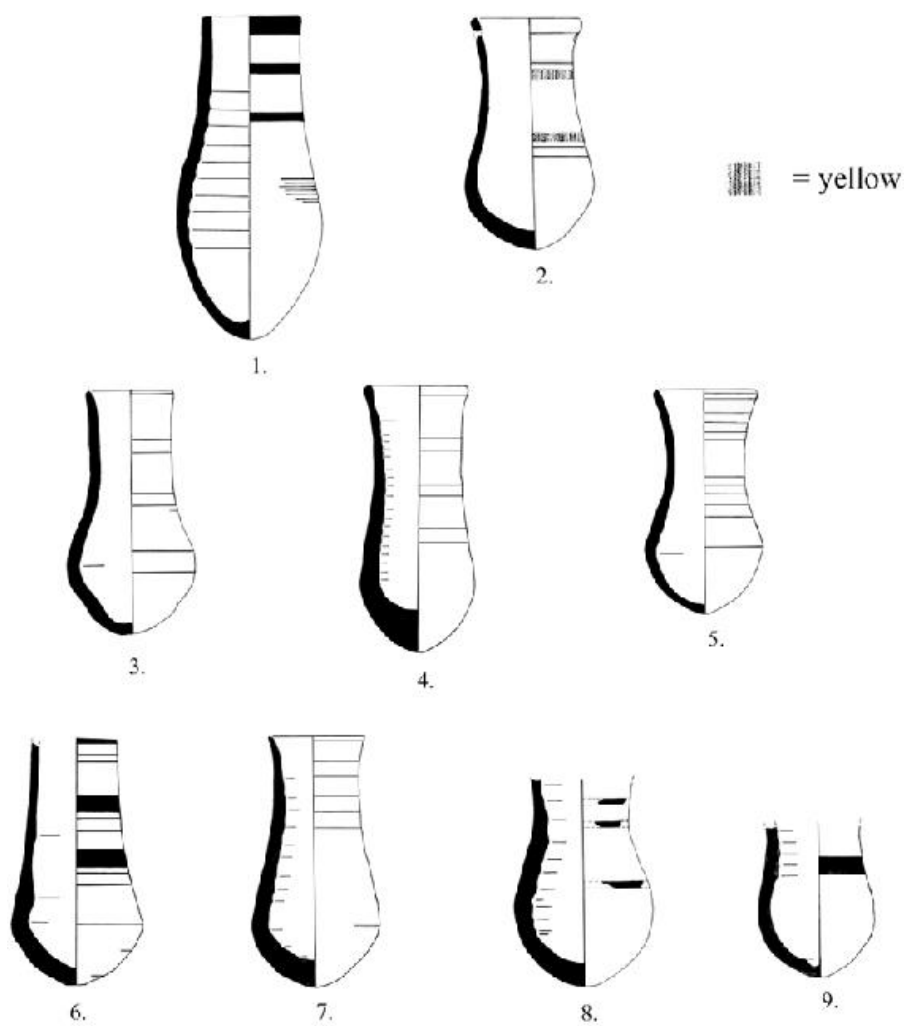
9.



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FIG. 7. Decanters with various bases, levels two and four and area AL SW.



1:4

FIG. 8. Decorated Decanters, levels two and four and area AL SW.

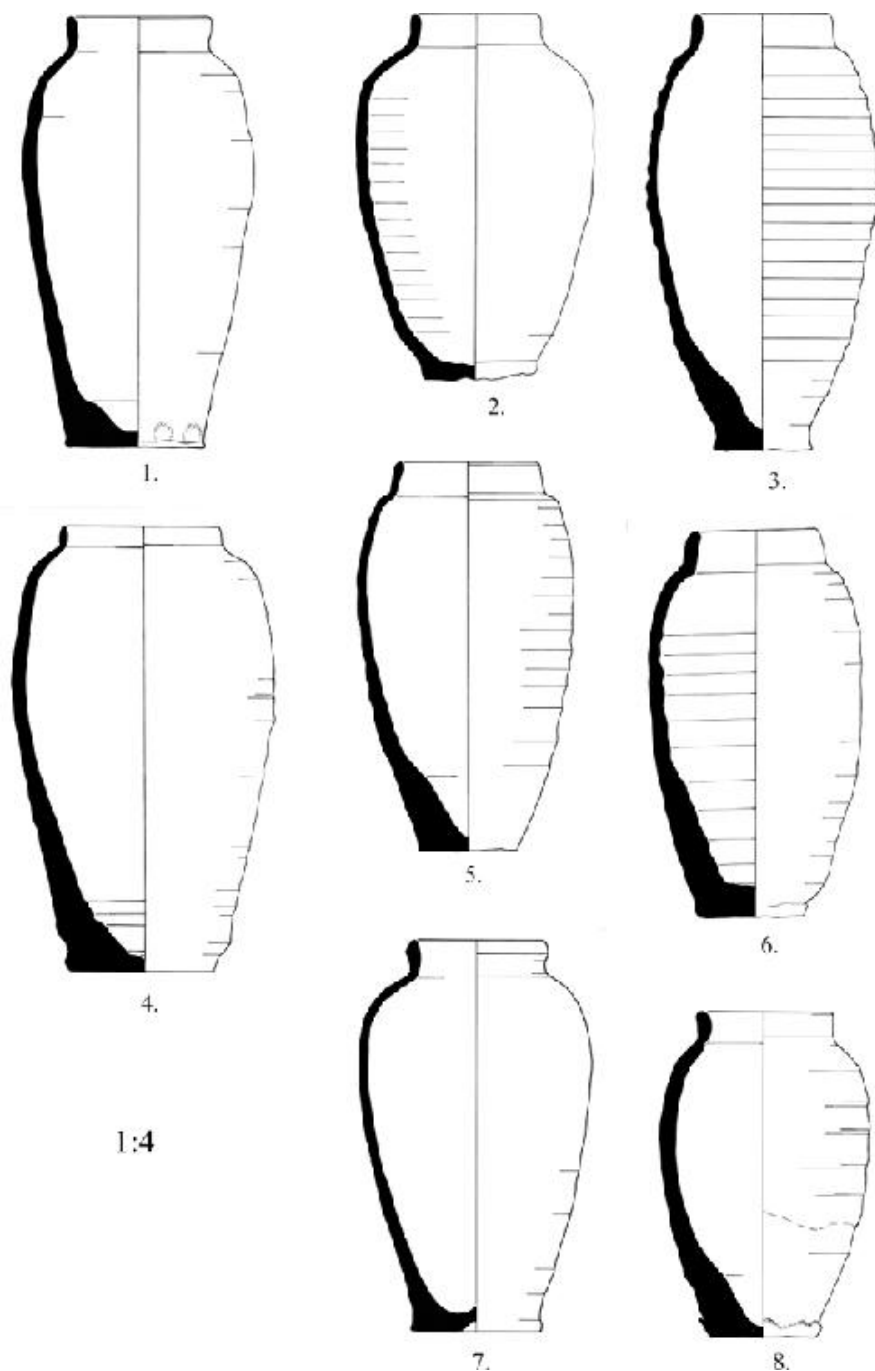
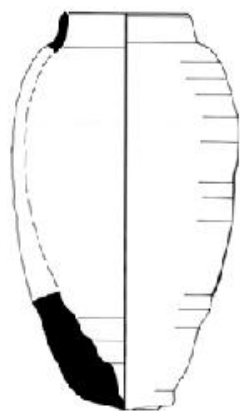
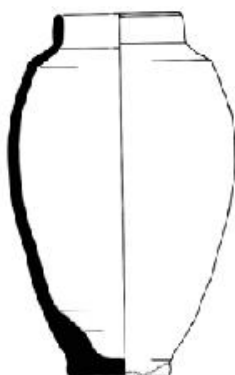


FIG. 9. Beer jars, level two.



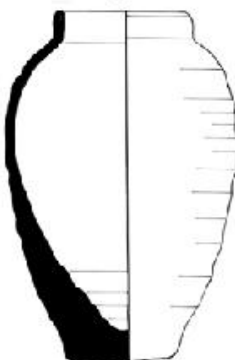
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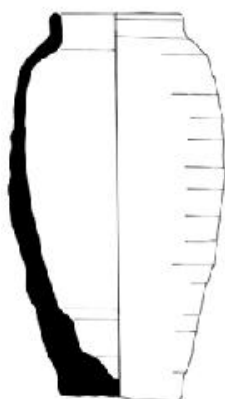
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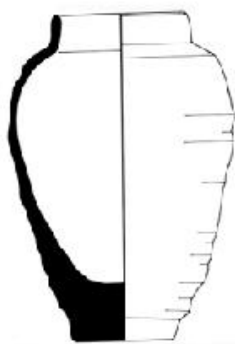
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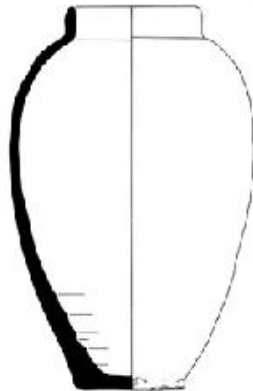
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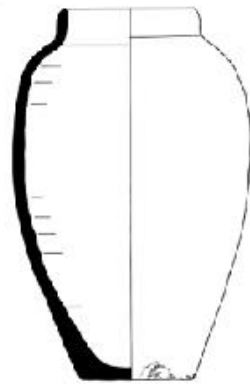
FIG. 10. Beer jars, level four.



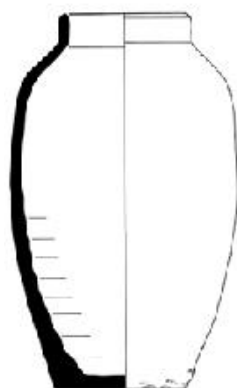
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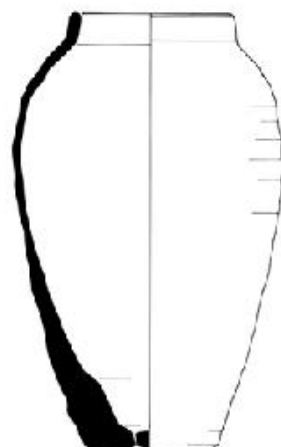
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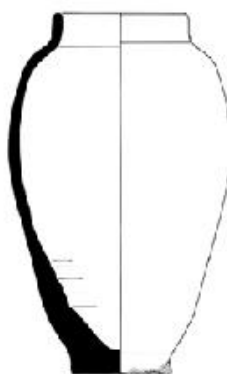
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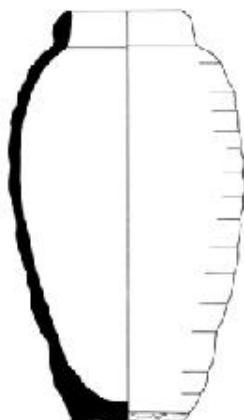
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FIG. 11. Beer jars, level four.



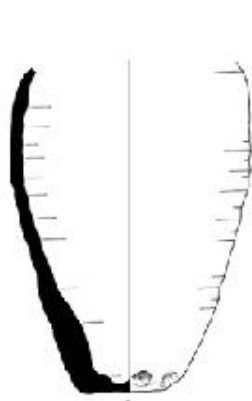
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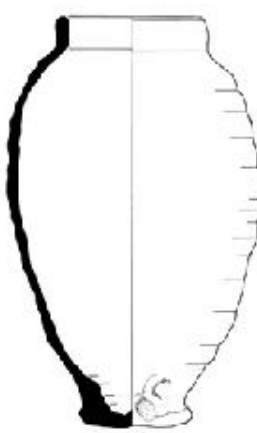
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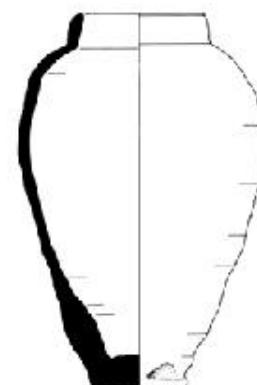


6.

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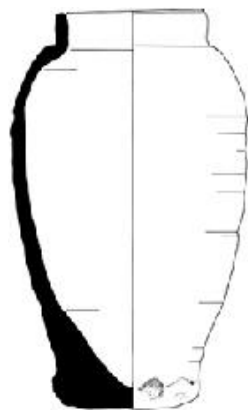


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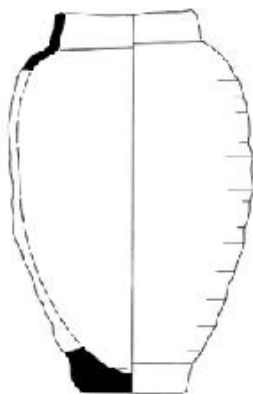


8.

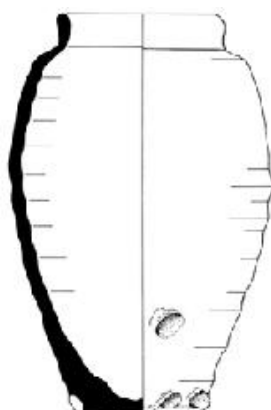
FIG. 12. Beer jars, area AL SW.



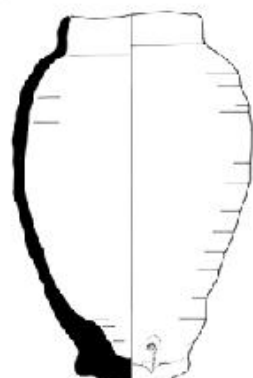
1.



2.



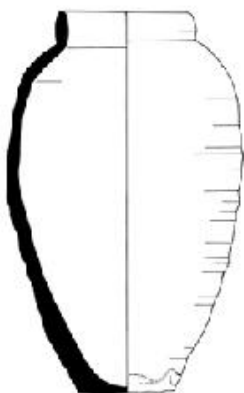
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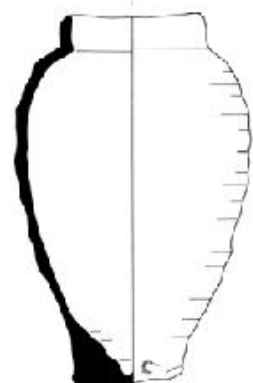
5.



4.



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1:4

FIG. 13. Beer jars, area AL SW.

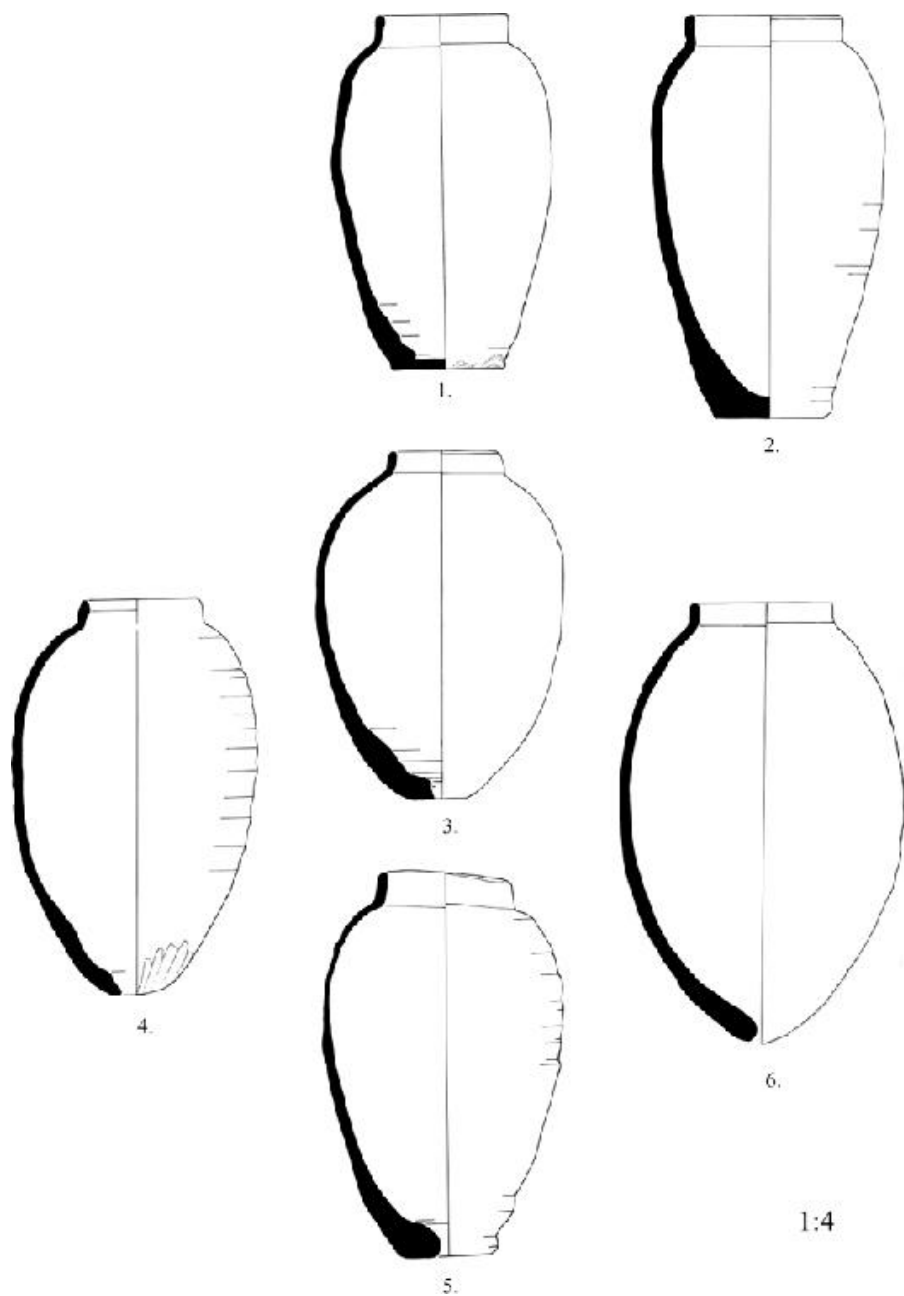
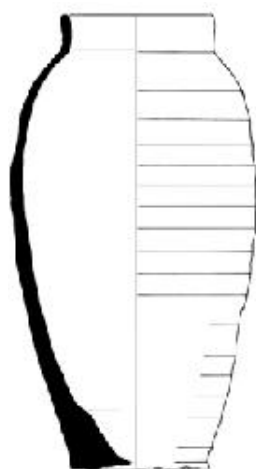


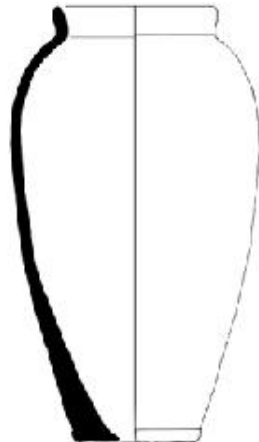
FIG. 14: Nos 1, 2: Beer jars, level five. Nos 3, 4, 5, 6, Beer jars with rounded and perforated bases, levels two and four.



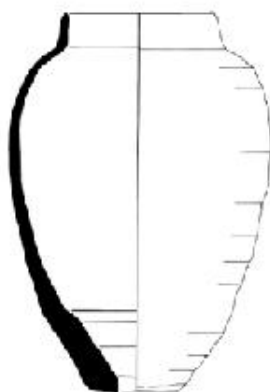
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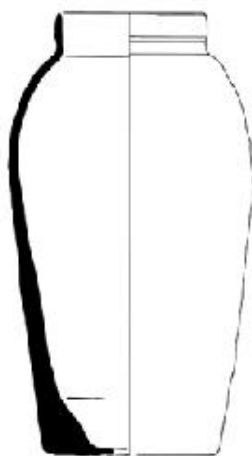
2.



3.



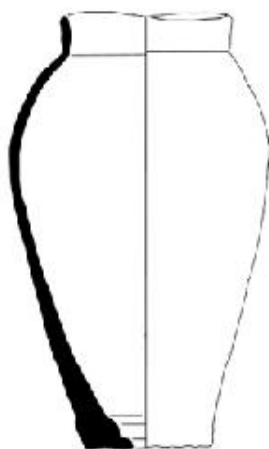
5.



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1:4

FIG. 15. Beer jars with perforated bases, level two.

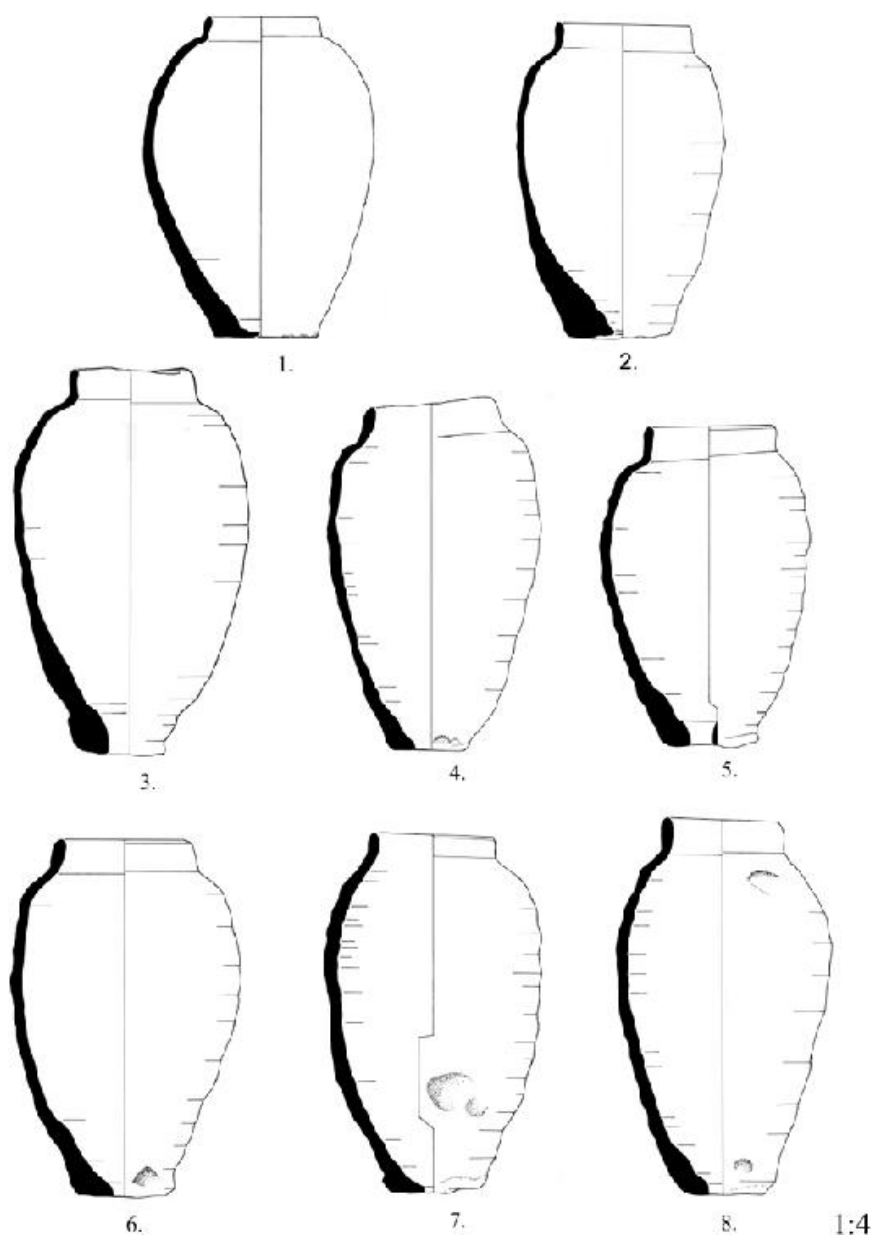


FIG. 16. Beer jars with perforated bases, levels three and four and area AL SW.

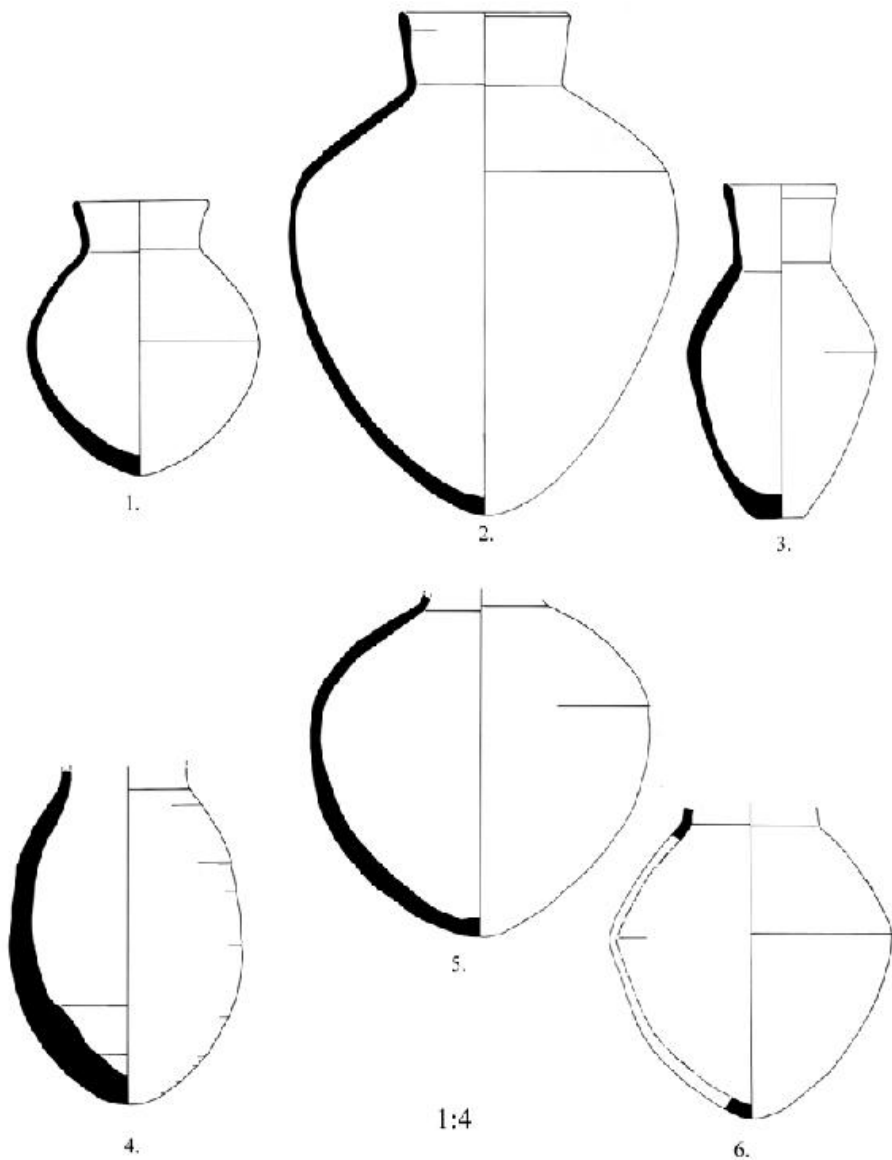
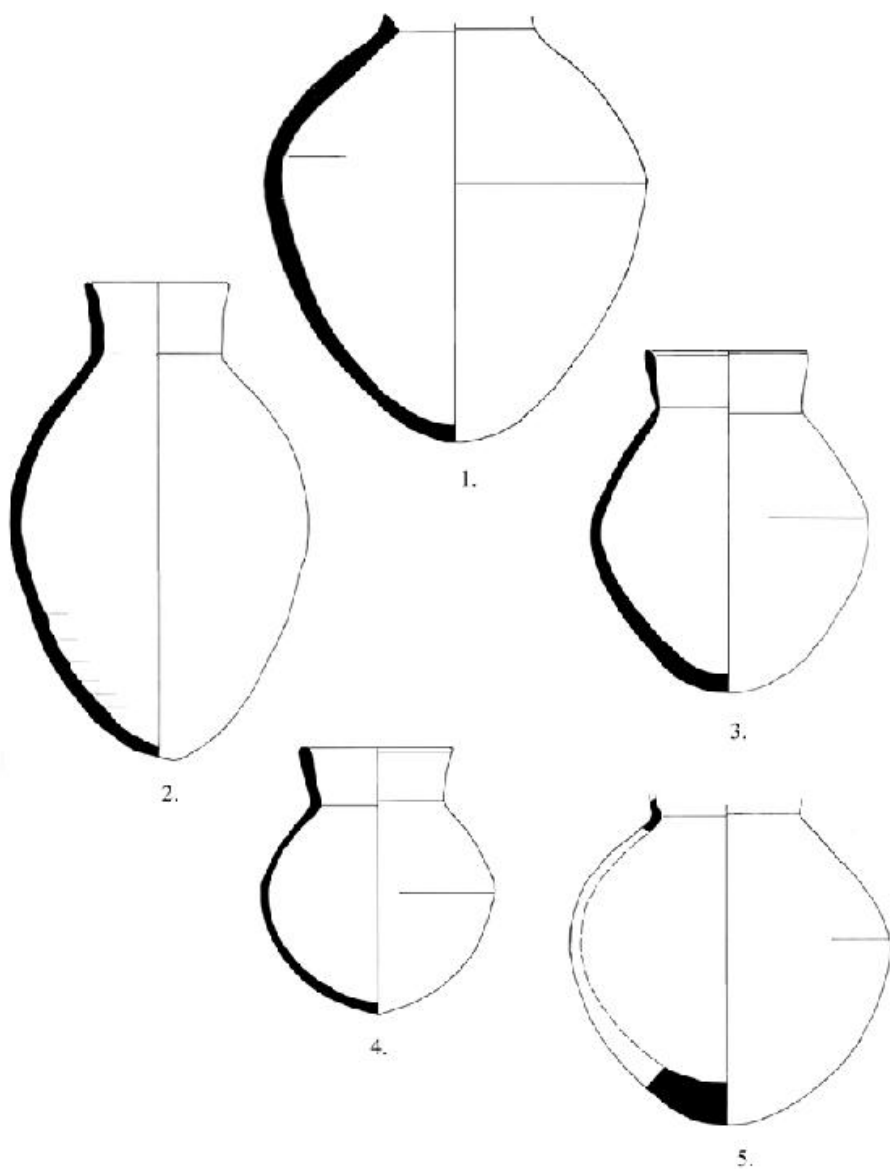


FIG. 17. Vertical-necked jars with direct rims, level two.



1:4

FIG. 18. Vertical-necked jars with direct rims, levels three and four.

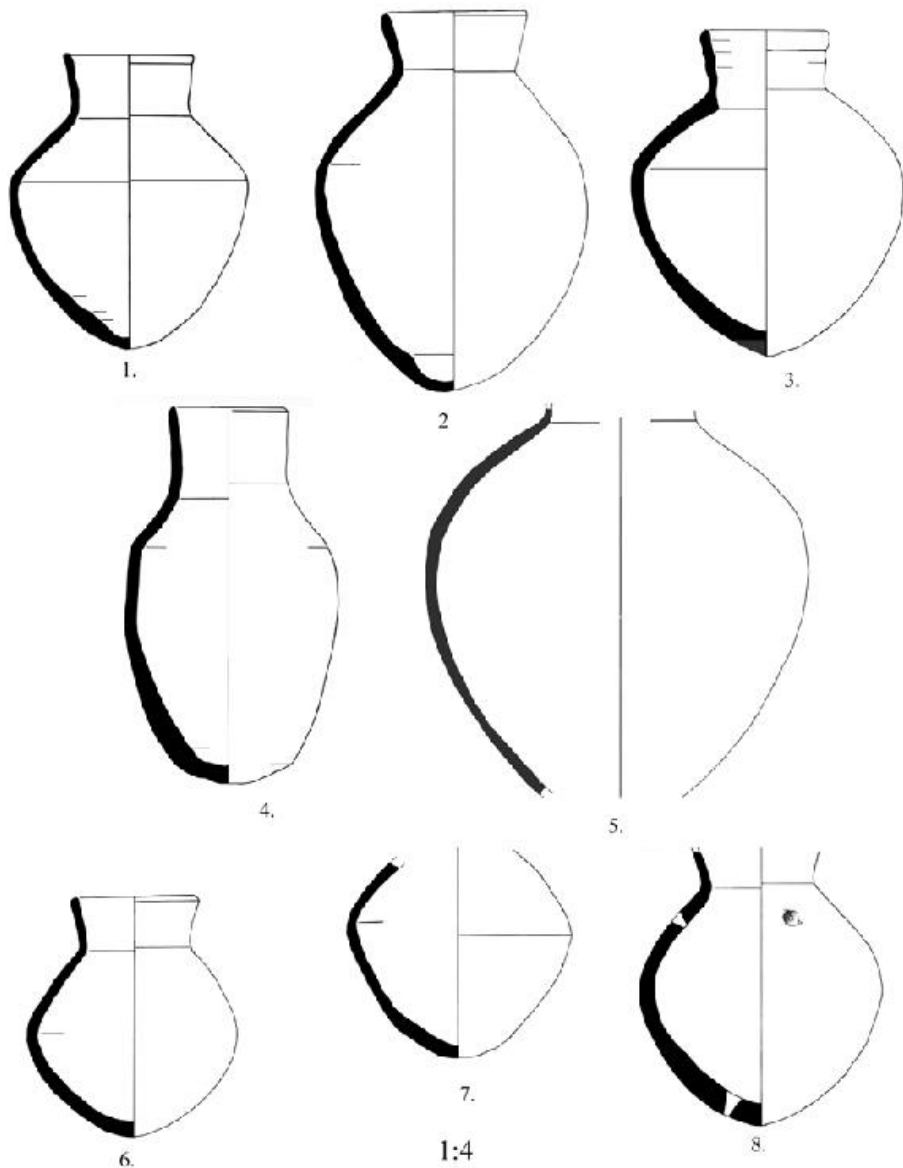
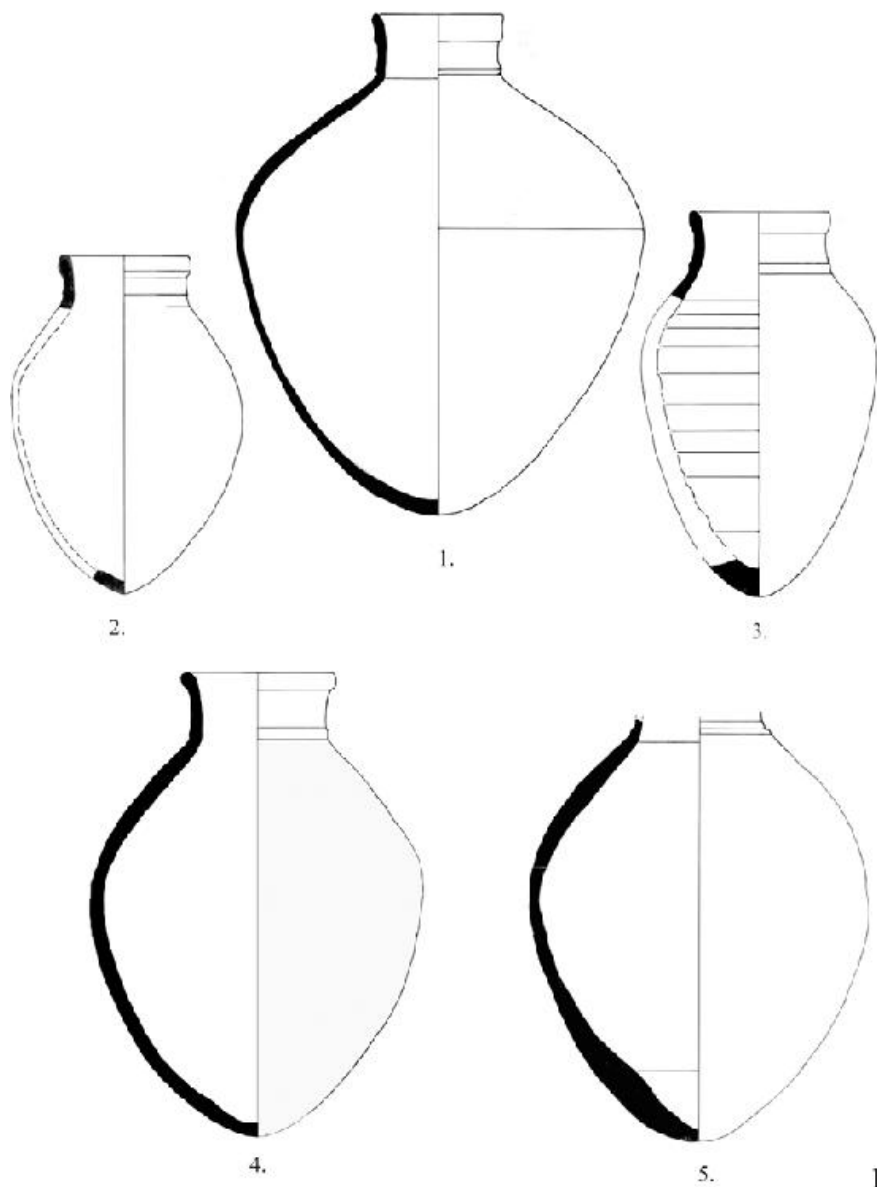
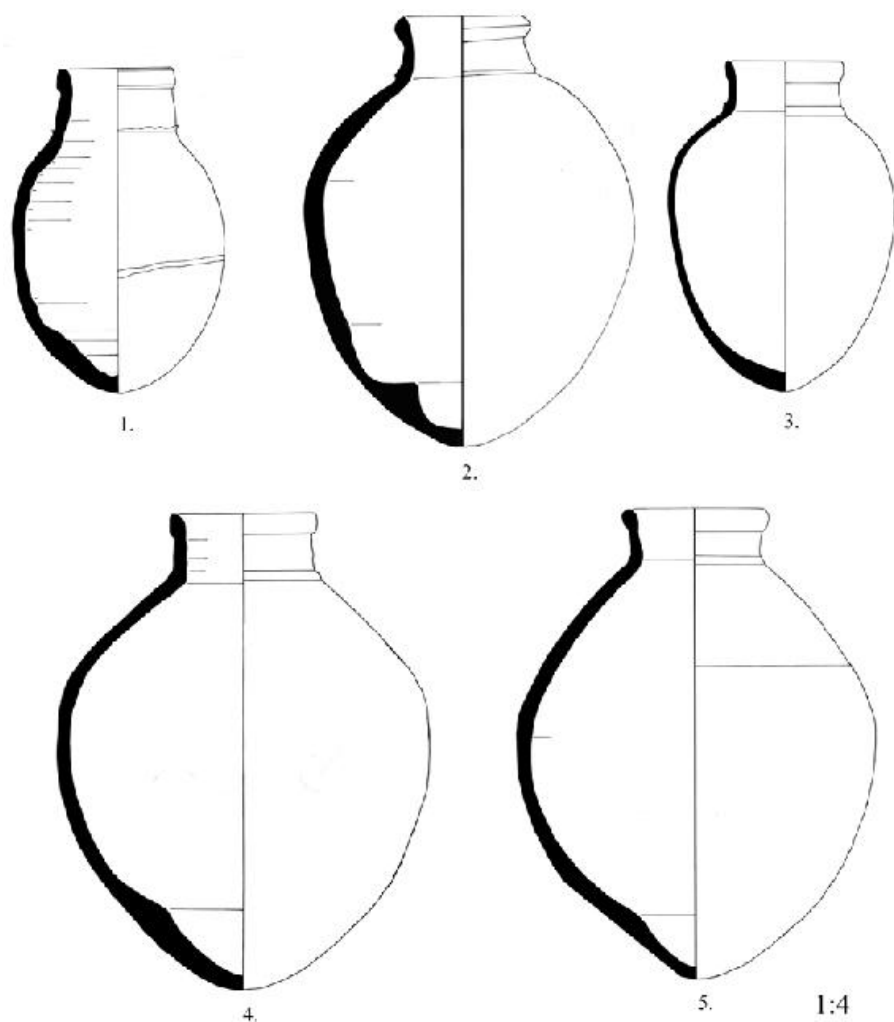


FIG. 19. Vertical-necked jars with direct rims, area AL SW.



1:4

FIG. 20. Jars with collared necks, levels one and two and three.



1:4

FIG. 21. Jars with collared necks, level four.

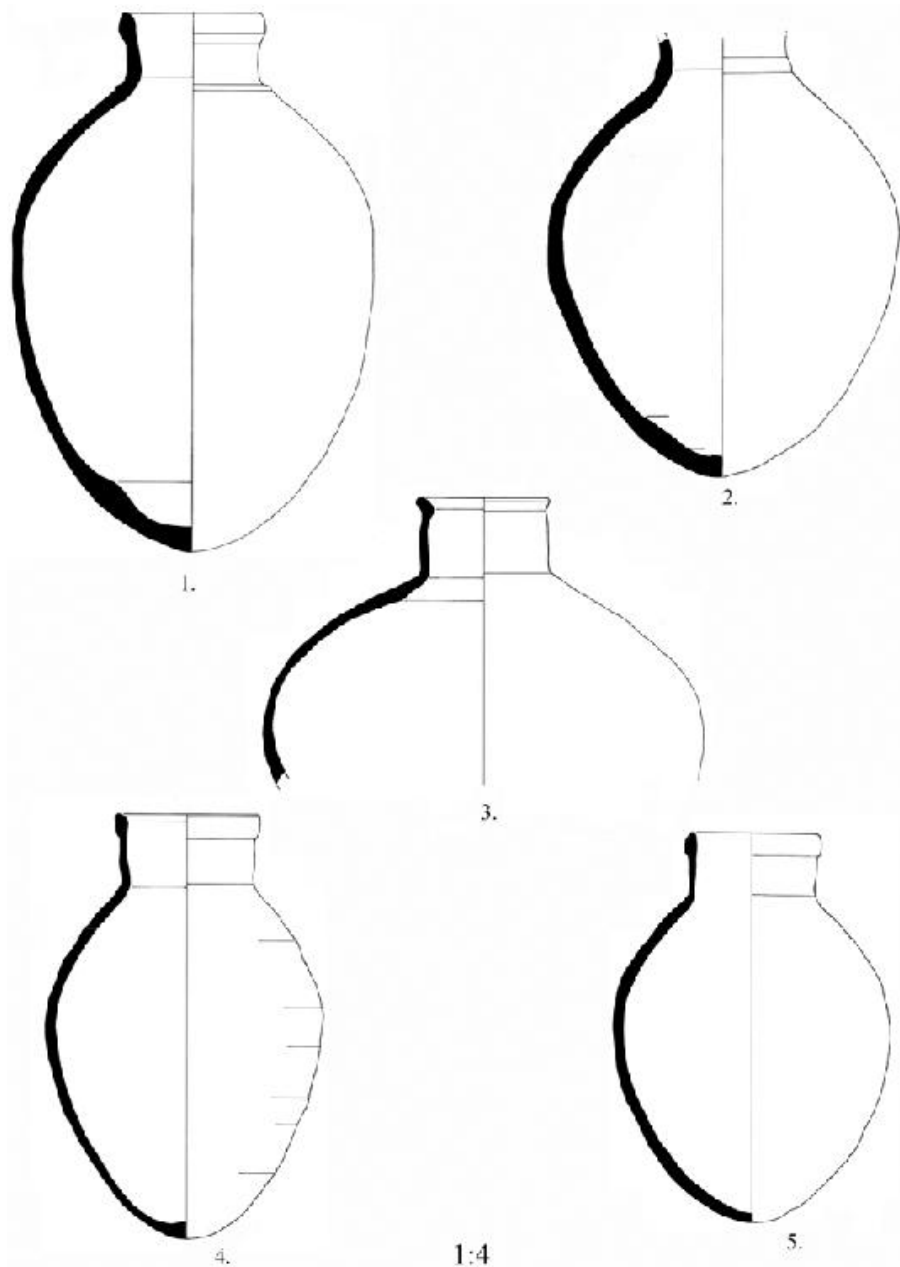


FIG. 22. Nos 1, 2: Jars with collared necks, area AL SW. Nos 3, 4, 5: Jars with modelled rims, levels one and two.

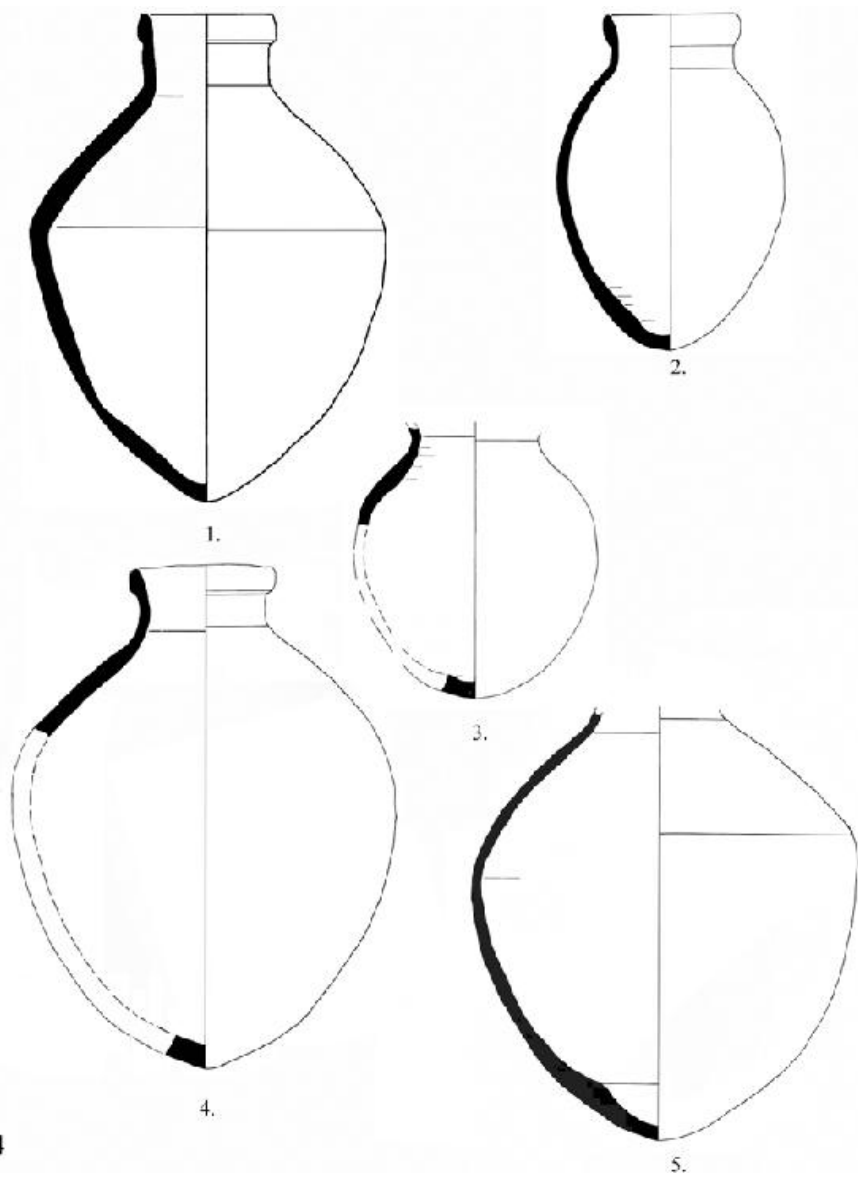


FIG. 23. Jars with modelled rims, levels three and four and area AL SW.

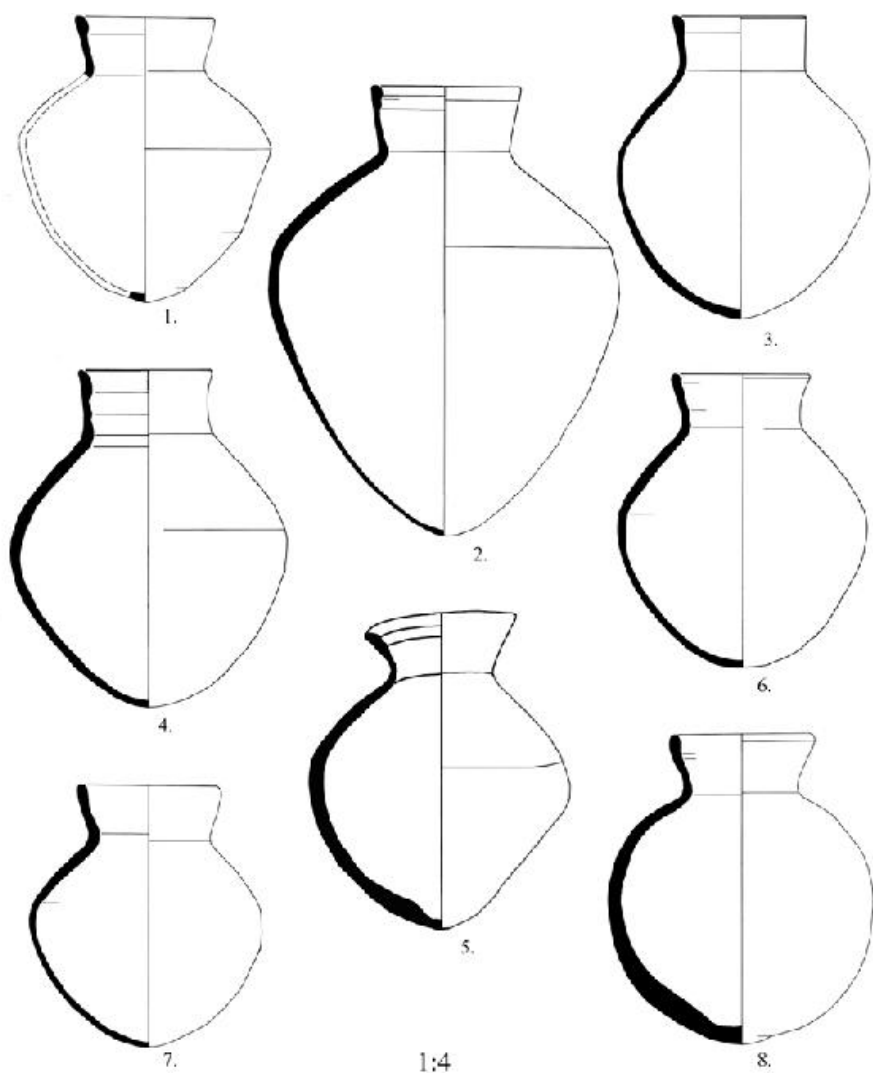
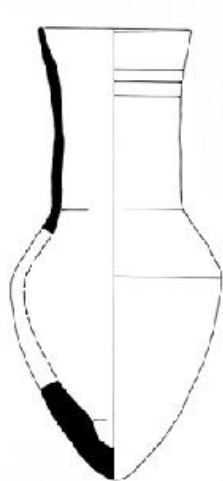
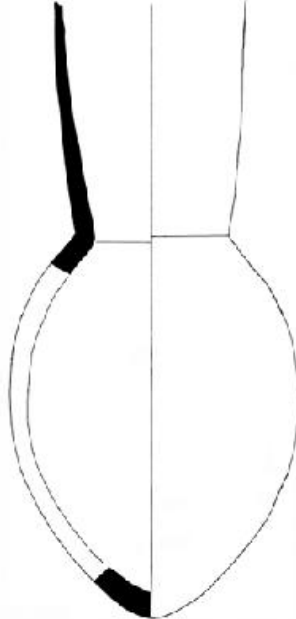


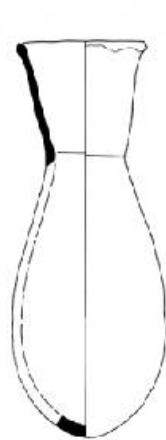
FIG. 24. Jars with thickened inner rims, levels two and three and area AL SW.



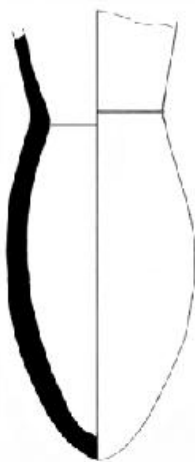
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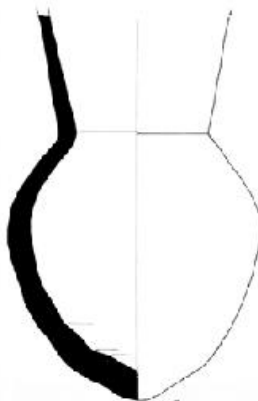
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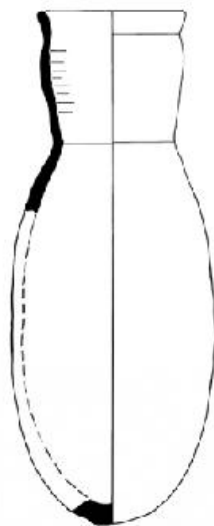
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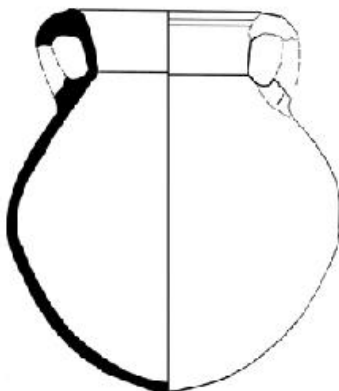
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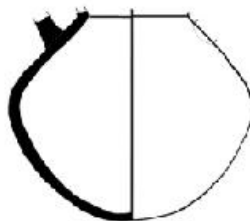
FIG. 25. Funnel-necked jars, levels two and four and area AL SW.



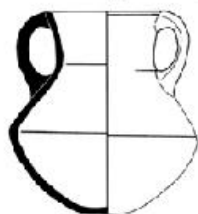
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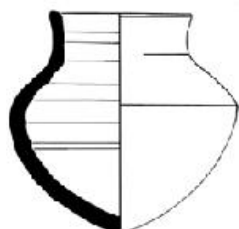
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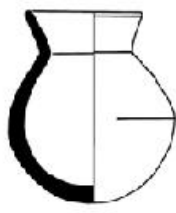
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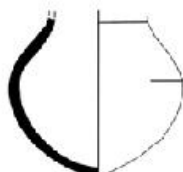
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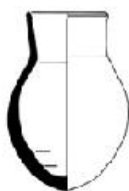
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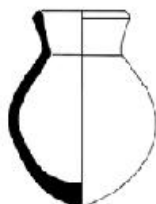
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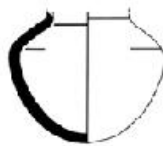
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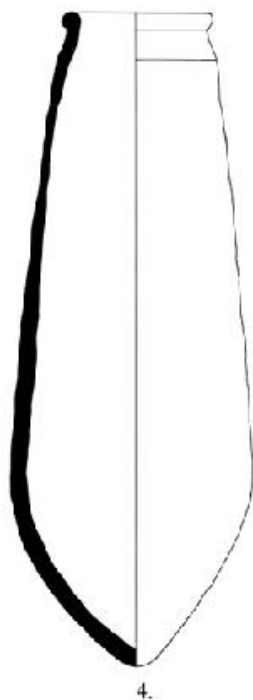
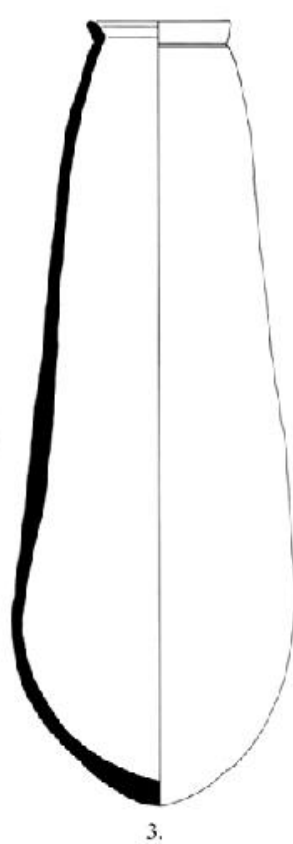
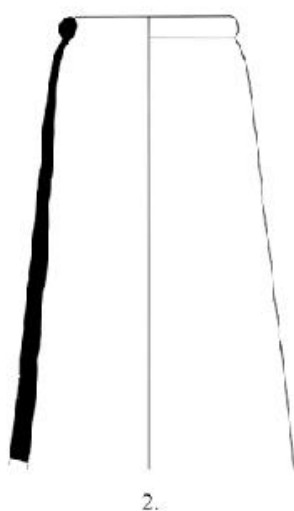
11.



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1:4

FIG. 26. Nos 1–4: Two-handled jars, area AL SW. Nos 5–12: Small jars, levels three and four and area AL SW.



1:4

FIG. 27. Cylindrical jars, level two.

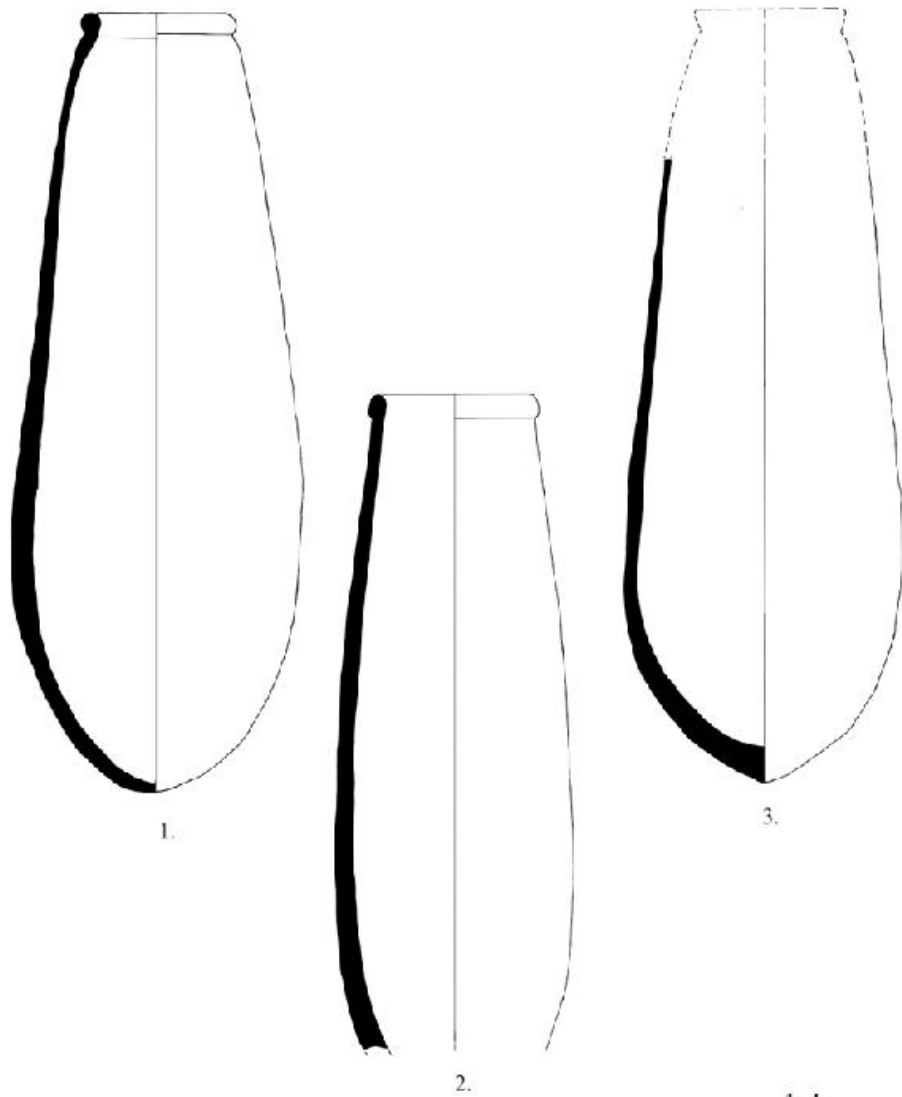


FIG. 28. Cylindrical jars, levels three and four.

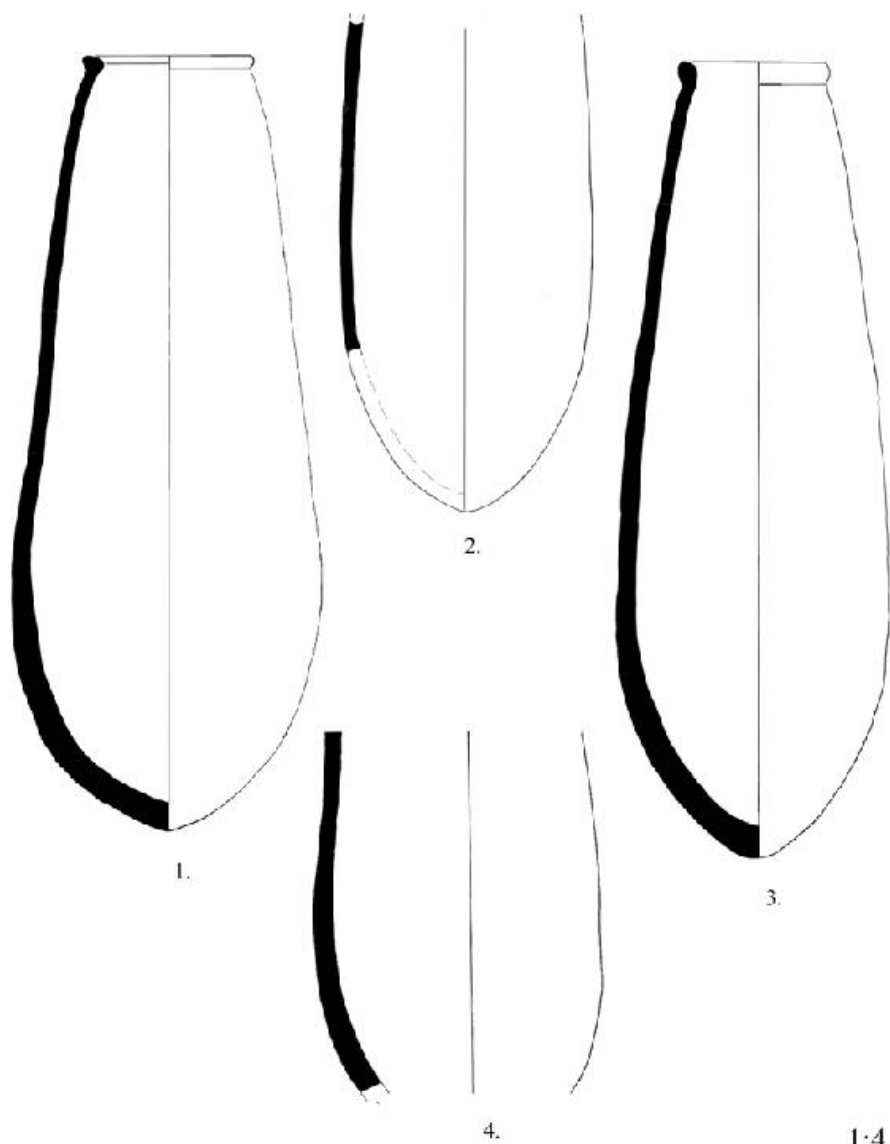
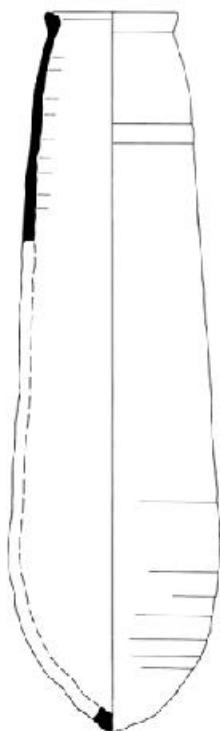


FIG. 29. Cylindrical jars, level four and area AL SW.

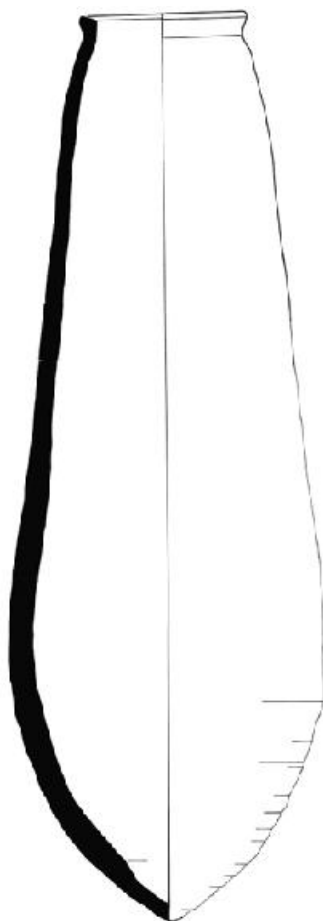
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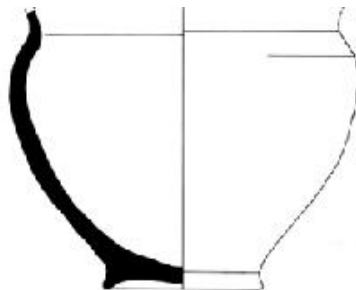
3.

1:4

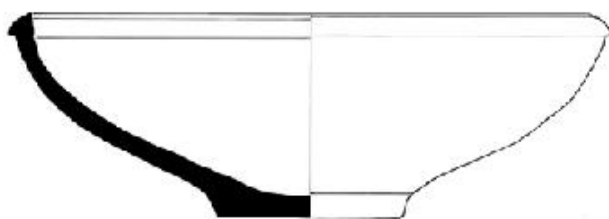
FIG. 30. Cylindrical jars, area AL SW.



1.



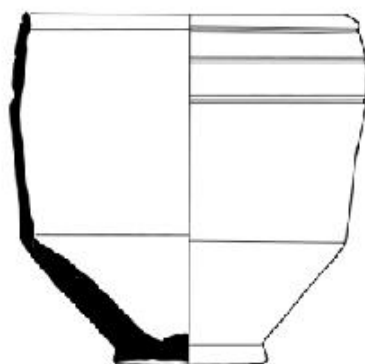
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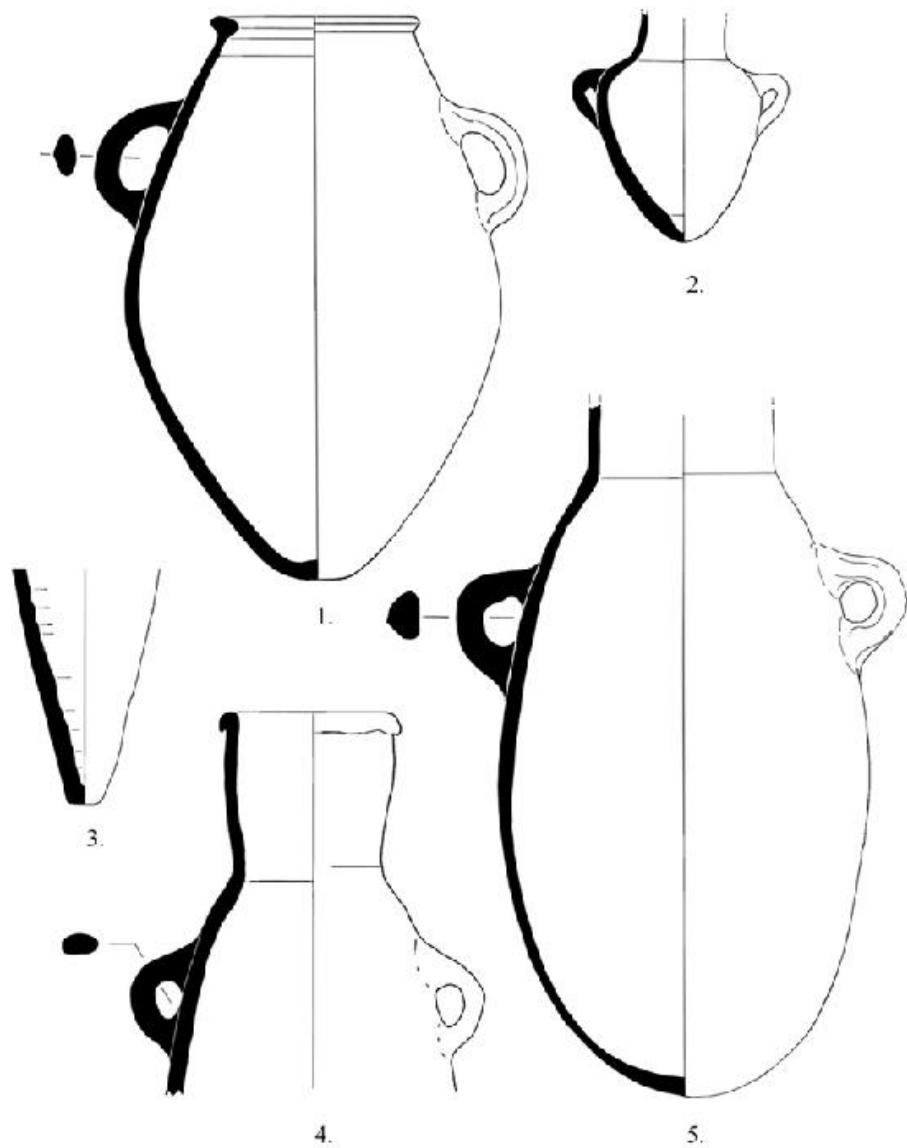
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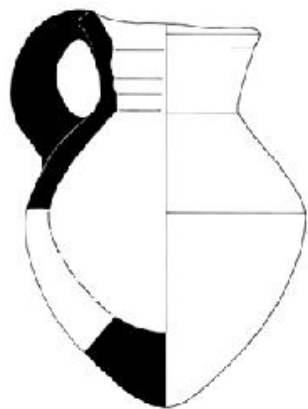
1:4

FIG. 31. Bowls, levels three and five and area AL SW.



I:4

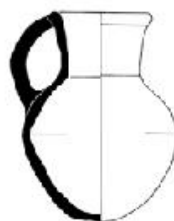
FIG. 32. Amphorae, levels two and three, area AL SW.



1.



2.



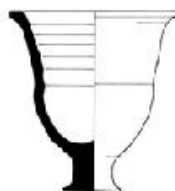
4.



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FIG. 33. Miscellaneous vessels, levels two and three and area AL SW.

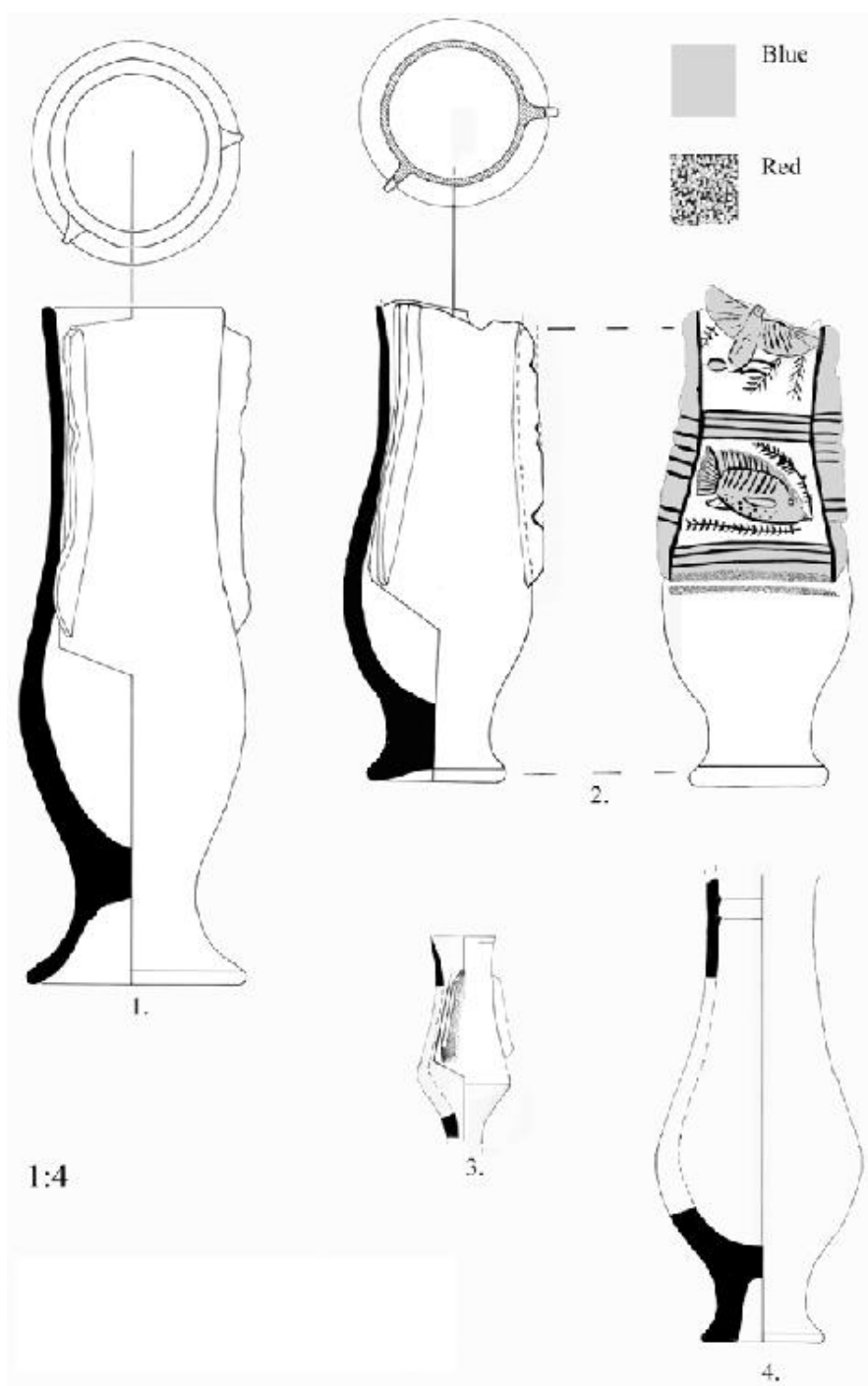


FIG. 34. Fish Jars, levels two and three.

¹ I am grateful to Loretta M. James for copy-editing this paper.

² Since 1995 Dr. Redford and his team have discovered the remains of a

Rameside temple at Mendes. In 2005 more of this pottery stratum was uncovered.

3 Aston, 1996, p. 59. The best comparative material for the Mendes pottery comes from Aston's Phase I which is dated to the 12th–10th centuries B.C.

4 Adel Farouk is to be commended for his fine work in restoring more than 200 vessels.

5 Nordstrom and Bourriau, Fascicle 2, p. 181.

6 Bourriau and Nicholson, p. 37.

7 Bourriau, Smith and Nicholson, p. 19.

8 This mixed ware is very rare at Mendes and is represented by only one small amphora. (Fig. 32:2)

9 Holthoer, p. 171.

10 See MP 95026 (pl. 5:9) and MP 95009 (pl. 8:4). Both vessels held 400 ml of water.

11 Aston, 1998, p. 599, no. 2456.

12 Aston, 1999, pl. 6:119.

13 Aston, 1999, pl. 5:115–118.

14 Hope, 1989, "Ramesside Pottery", figs. 7:n, 8:j.

15 Aston, 1996, fig. 195:c,d.

16 Holthoer, p. 60.

17 Aston, 1996, p. 69.

18 Aston, 1996, p. 63.

19 Petrie, pl. xvii.

20 The author wishes to thank Alicia de Rodrigo, Larry Pavlish and Patrick Carstens for conducting these tests.

21 Aston, 1996, p. 63, fig. 196: d, e, f and g (all Phase I).

22 Dr. Richard Wilkinson (Director, Tausert Temple Project, University of Arizona) has been excavating the temple since 2004. (Pottery seen by author.)

23 Aston, 1999, p. 42. Aston dates jars nos. 10 and 41 to the time period between Seti II and Ramesses III. The same type of jar is noted as occurring in the reign of Ramesses II.

24 Aston, 1996, see n. 62 on p 17, fig. 8b.

25 Aston, 1999a, p. 44.

26 Many of these bowls with the wide red-slipped band on the interior rim were found in the foundation trenches of the Temple of Tausert in 2006 and were firmly dated to the end of the Nineteenth Dynasty.

27 So-called because many vessels of this type were found at Amarna bearing labels that identified their contents as meat.

28 Bourriau, Smith and Nicholson, 2000, p. 19.

29 Aston, 1996, p. 66, group 50.

30 Only two juglets are made from Marl D, pl. 33:2 and 3.

31 Aston, 1999, p. 43. jars 16 and 17.

32 Hope, 1991, p. 77, AIIb:1 to 11.

33 Aston, 1996, p. 79.

34 Over twenty stelae with multiple fish in carved relief were recovered at Mendes.

35 Alicia de Rodrigo has published a detailed study of the fish-shaped jars from Mendes in *BCE XXI*. p. 7–10.

36 Aston, 1999, p. 43.

37 Redford.

38 An unfired clay plug was found in one of the decanters suggesting this as the popular mode for closing the vessels and explaining why so few were found.

AN INTERIM REPORT ON THE NAQADA III – FIRST INTERMEDIATE PERIOD STRATIFICATION AT MENDES 1999–2005

Matthew J. Adams

The Pennsylvania State University

I. INTRODUCTION¹

This interim report describes a stratigraphic sequence excavated in Field AJ North at the ancient city of Mendes in the east Delta (Fig. 1). The most noticeable topographical feature at Mendes is the main cult area with a temenos cincture built by Ptolemy II.² At the rough center of this enclosure is a mound rising three to five meters up from the rest of the site (Fig. 2). The New Kingdom Temple was built on this pre-existing mound,³ which we now know is composed primarily of Old Kingdom remains.⁴ The shape of this mound was formed by the Old Kingdom mastaba field which surrounded a contemporary large mudbrick platform upon which the contemporary temple was likely located (Fig. 2, Fig. 3).⁵ Field AJ North was designed to penetrate the western slope of this mound in order to acquire an extensive stratigraphic sequence from the beginning of habitation at the site to the First Intermediate Period (the point at which the mound had become fully developed; Fig. 3).⁶

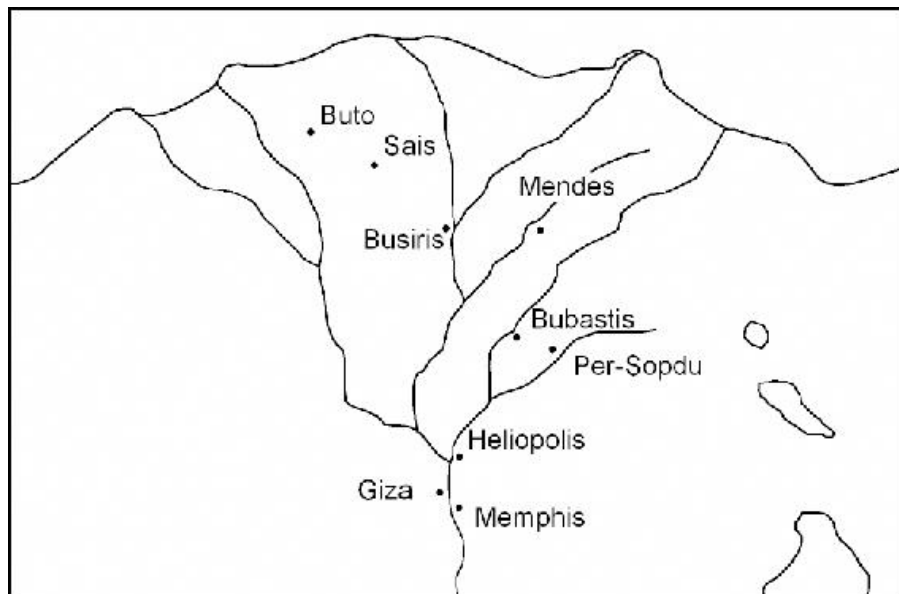


FIG. 1. Nile Delta.

Theoretical Framework

“State formation” in Egypt is generally seen as the process by which a centralized, national authority emerges and often viewed as chronologically isolated to the last quarter of the fourth millennium BCE (Naqada III).⁷ In his consideration of the evolution of the Egyptian state, Robert Wenke applies a model which is appreciably broader than this traditional timetable. In his view, the entire development from nascent agricultural society to the collapse of the first state in the late Old Kingdom is an evolutionary process which must be assessed holistically. For this “single epoch of transformation,” he has coined the phrase “The First Dynastic Cycle.”⁸ It is a period “during which Egypt’s settlement patterns, functional interdependence and complexity, and other primary variables underwent parallel changes in evolutionary tempo and direction, culminating in the mature Old Kingdom state,”⁹ and concluding with its imminent collapse.¹⁰ Thus “state formation” is perhaps best seen, not merely in the final centuries of the fourth millennium, but as a lengthy process, spanning some two millennia (c. 4000–2200 BCE), during which the first iteration of the Egyptian state is actualized.



FIG. 2. Mendes main temple mound (Google Earth™ mapping service).

Excavations in Field AJ at Tell er-Rub'a, Mendes, in the east Delta, have been conducted since 1999 with the intention of providing an archaeological sequence covering the entire First Dynastic Cycle. The longevity of the site, preservation of its remains, and the presence of favorable environmental and geological conditions make Mendes a prime candidate to provide the first complete sequence of this kind, and our goal in Field AJ has been to excavate just that sequence. Stratigraphic probes around the site have verified the existence of the relevant strata, and the first objective of this project was to scientifically excavate and process the Field AJ material which belongs to the pertinent time period. The ongoing objective of this project is to evaluate the stratigraphic, ceramic, and other related data from the holistic perspective offered by Wenke's First Dynastic Cycle. This interim report is intended to describe some of the basic stratigraphic data gathered thus far in that endeavor, and describes the archaeological sequence spanning the Early Dynastic Period through the First Intermediate Period.

Previous Excavation at Mendes Relating to the First Dynastic Cycle

Scholarly visitations to and descriptions of the site of Tell er-Rub'a (Mendes) go back as far as the early 18th Century.¹¹ However, the first semi-systematic excavations did not take place until 1860, when Auguste Mariette conducted a brief artifact reconnaissance at the site after the discovery of "interesting finds."¹² Excavations continued sporadically by scholars of varying archaeological expertise¹³ until the 1960s when New York University began controlled excavations under the direction of Bernard V. Bothmer, Donald P. Hansen, and Karen

Wilson.¹⁴ These excavators were originally interested in the New Kingdom/Late Period Temple complex, but they did discover tremendous and understated deposits from the late Old Kingdom and First Intermediate Period (as well as notable remains of Early Dynastic levels). Beginning in 1989, Donald B. Redford, Douglas J. Brewer, and Robert J. Wenke¹⁵ were granted the concession to the site and the work begun by them continues today under the direction of Donald Redford.¹⁶

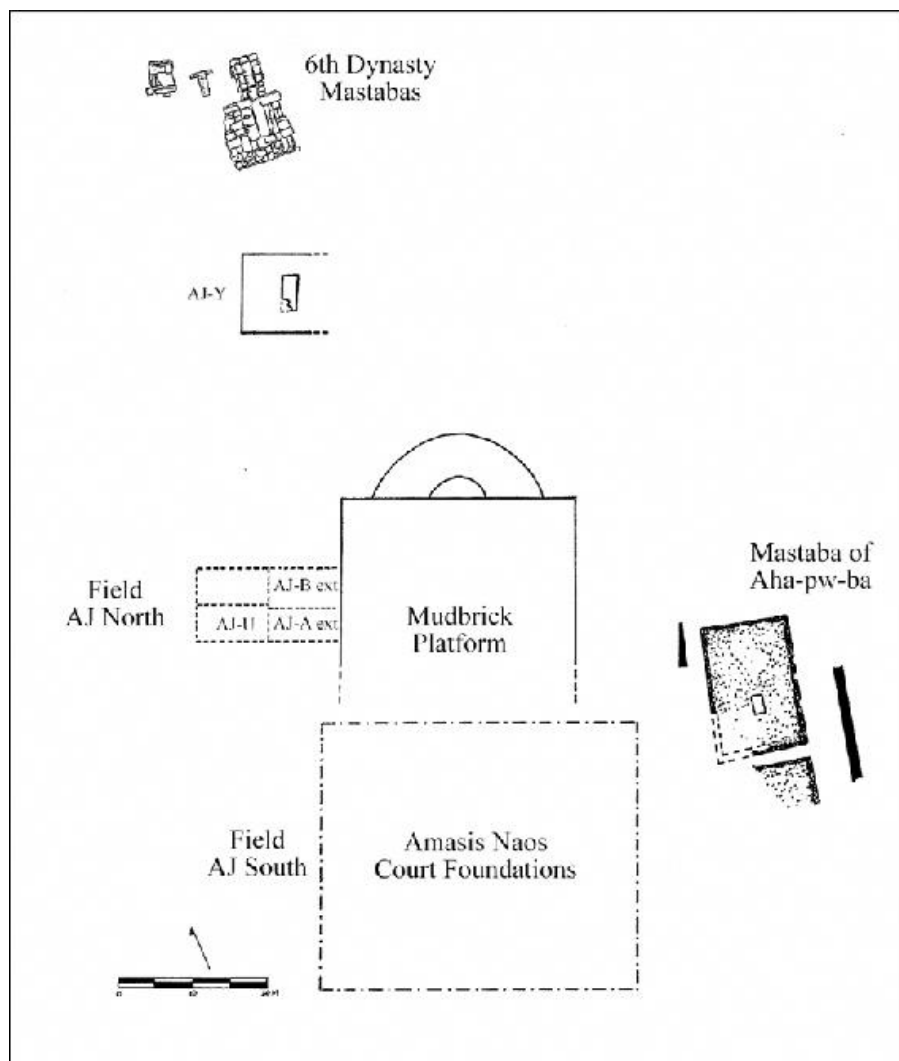


FIG. 3. Temple mound showing location of Field AJ North excavations and other key features from the First Dynastic Cycle. Everything indicated on this plan (except for the Naos Court) existed contemporaneously in the late Phase III, before the cataclysm.

Field AJ North

While excavation at Mendes has revealed material temporally relevant to the First Dynastic Cycle at various points around the site, the subject of this interim report is the material from Field AJ North (Fig. 2 and Fig. 3) consisting of units AJ-A ext. AJ-B ext., and AJ-U. The primary results described herein belong to the 1999 through 2005 seasons. Excavation in 2007 has added significant new data, but material from that season has not been fully processed. Therefore, data from this most recent season is appended to earlier results only where significant based on preliminary study.

AJ-A EXT.

In 1999 a 5m × 7m excavation unit, designated AJ-A ext. was opened on the western slope of the temple debris (south of the northwest Old Kingdom mastaba field, and northwest of the Naos court). This unit was intended to provide a stratigraphic profile from the First Intermediate Period into the Predynastic Period of accumulated remains abutting the western retaining wall of the sand foundation of the New Kingdom temple.¹⁷ The retaining wall, originally interpreted as solely New Kingdom, is now clearly two abutting walls: an Old Kingdom wall, cut by the New Kingdom foundation wall. The Old Kingdom wall forms the eastern baulk of AJ-A ext. Once excavation commenced, late Old Kingdom material culture and architecture was uncovered just below the surface.

By 2001, this unit had been brought down through four building phases from the First Intermediate Period to the 4th/3rd Dynasty. In 2001, we descended through two major building phases and reached architecture dating to the 1st Dynasty. Excavation in 2004 and 2005 further clarified the Early Dynastic architecture as well as exposed the seventh building phase, dating to Naqada IIIB-C1. And our most recent work in AJ-A ext., in the 2007 season, has revealed an eighth architectural phase also dating to the Naqada IIIB-C1.

AJ-U

In 2003, unit AJ-U (11m × 5m) was opened west of AJ-A ext. with a one meter baulk. While AJ-A ext. was on the slope of the temple mound, itself, AJ-U occupied the closest low-lying area at the base of the slope. The first architecture discovered was found to be contemporary with the Early Dynastic Architecture of AJ-A ext. Phases V, VI, VII, and VIII have now been revealed in both units.

AJ-B

In 2004, AJ-B ext. (7m × 4m) was opened to the north of and

adjacent to AJ-A ext., also on the slope of the temple mound. This unit was designed to compliment and check the stratigraphy of AJ-A ext. The 2004 and 2005 seasons concentrated on the first four building phases of AJ-B ext. In the 2007 season, we added a 1.5m extension to the north side of the unit and excavated from the top down to Phase IV (where AJ-B ext. stopped in the 2005 season). This accomplished three goals. First, we intended to lay a new 10m × 10m grid over this side of the site that would accommodate our plan for future excavation. In this new grid, AJ-A ext. and AJ-B ext. would be combined into one unit (see below). Second, during previous excavation of AJ-B ext., we discovered that in Phase III and IV, most of the unit was a large east-west street between two buildings. The southern building was well sampled in AJ-A ext., but the northern building extended less than a meter into AJ-B ext., and was therefore unexposed in the northern baulk. By extending AJ-B ext. to the north, we were able to better sample the Phase III and IV buildings. Third, we also extended this 1.5 meter northern extension to the east outside of the bounds of the new 10m × 10m unit in order to section the north-south wall forming the eastern boundary of AJ-A ext. and AJ-B ext. This keyhole incision was designed to connect the stratigraphic sequence of Field AJ North to the massive mud brick platform excavated in previous season (see below).

Unit	Excavation Dates	Research Goal
AJ-A ext.	1999 – 2007	Core of temple mound stratification project
AJ-U	2003 – 2007	Expansion of Early Dynastic exposure
AJ-B ext.	2004 – 2007	Stratigraphic check for AJ-A ext.

Table 1. Units presented in this report.

II. STRATIGRAPHY, CERAMICS, AND PRELIMINARY INTERPRETATIONS

Introduction

Our excavations thus far have revealed eight major architectural phases from the Naqada III to the First Intermediate Period (Phase I–VIII). Table 2 provides a breakdown of the major phases, their proposed dates based on ceramic and inscriptional evidence, and their correlation with strata at Buto.¹⁸ Also included on the chart are three general ceramic phases not yet represented in the new sequence but attested by sherds discovered in other parts of the site. This provides a valuable indicator of the potential for a complete stratigraphic

sequence of the First Dynastic Cycle. Table 3 is a more detailed summary of the excavated phases with reference to units and architectural elements present in each phase.

Notes on Ceramic Terminology

Each pottery figure is accompanied by a table containing pertinent information on each sherd. On the description table: “Figure: Number” indicates the plate and drawing number on the pottery figure; “Identification” indicates unit, locus and sherd number (in this format: unit/locus + sherd number, e.g. AJ-B ext./109b.09, where AJ-B ext. is the unit, 109 is the locus, and b.09 is the sherd number); “Type” indicates the Mendes Field AJ (MAJ) form number, corresponding to a group designation used in the ceramics recording system, these numbers are also used in the textual discussion of forms from each phase (a.k.a. Form, throughout the text);¹⁹ “Decoration” indicates the type of decoration featured on the particular example; “Fabric” indicates the fabric of the example based on the system used at Mendes.

Fabric analysis of ceramics from Field AJ North has been conducted within the framework of the “Vienna System”.²⁰ Using these techniques and standards of description, nine fabrics made from Nile silt (Mendes Nile Silt: MNS) and five fabrics made from marl clays (Mendes Marl: MM) have been identified thus far. Additional ceramic analysis needs to be conducted in this area at Mendes, but the following preliminary categories have been established. Only fabrics occurring in this interim report are reported here.

The Nile Silt categories are defined in large part by the relative presence and quantity of straw and sand. MNS A is a fine Nile silt ware defined by its absence of straw and the abundant presence of fine-sized sand temper, conspicuous presence of medium-sized sand, and the scattered (occasional) coarse-sized sand. MNS B and C are defined by their presence of straw temper and are differentiated by two criteria, sand size and straw size, and their ration of abundance. MNS B fabrics always have fine-sized straw; even in MNS B2b, where medium-sized straw is characteristic, fine-sized straw is present. Subcategories are decided by the proportion of fine-sized straw to larger straw. MNS B is also noted for its conspicuous sand particles. MNS C fabrics (and their subcategories), however, are overwhelmingly composed of medium-sized and coarse-sized straw, so much so that the sand inclusions are overshadowed.

MNS B is divided into 3 categories: 1. MNS B1, 2. MNS B2a, and 3. MNS B2b. The differentiation is primarily based on size and quantity of straw temper and (less so) size of sand temper. At Mendes, MNS B2a and MNS B2b often appear as gradations of what may have been

the same fabric (from the perspective of the ancient potters). Other times, the two fabrics appear to be distinct enough to have been intentionally different. Mendes Nile Silt C category is currently divided into three different categories: MNS C1, MNS C1M (further subdivided into C1M1 and C1M2; M referring to bread mould fabrics), and MNS C2. Differences between these three fabrics are not based on gradation unlike the MNS B2 series, but rather have their own unique characteristics.

MNS G is a fabric that seems to be based in the MNS C1 tradition, but whose sand-sized inclusions make the fabric particularly “dirty”. Medium- to coarse-sized straw is conspicuous to abundant (in many cases the “straw” is better described as grass or scrub leaves/twigs). Non-organic and organic inclusions range from fine- to medium-sized and are conspicuous to abundant. Fine- to medium-sized orange bits (which may or may not be grog) occur conspicuously; carbonized seed bits are scattered; angular medium- to coarse-sized metamorphic rock fragments are scattered; fine-sized micaceous particles are conspicuous. The matrix is so full of “garbage” (hence G) that it resembles the basic matrix of earth on the site. The fabric is most fired at a fairly low temperature that preserves straw very well; occasionally, intact pieces may be easily pulled out. It fires to a deep red/burgundy (sometimes violet²¹) color, often with a black core. MNS G often looks similar to MNS B2b (especially in straw additive) except for all the “garbage”. MNS G tends to be harder than the MNS B2b, though, and beer jars from Phase III have more tensile strength in G than in B2b.

Mendes	Buto	Naqada Period	Dynastic Chronology
AJ Phase Ia			Early Middle Kingdom
AJ Phase Ib			Hemikoupolim Period
AJ-Phase II			8th Dynasty
AJ-Phase II/III			6th – 8th Dynasty
AJ-Phase III			4th – 6th Dynasty
AJ-Phase IV		Naqada IIIb3-IV ¹	Late 2nd/3rd – 4th Dynasty
AJ Phase Vb	Buto V	Naqada IIIC2- IIID2	Late 1st – 2nd Dynasty
AJ Phase VI	Buto IV-V	Naqada IIIC1- IIIC2	? Den ?
AJ Phase VII	Buto IIIc-IV	Naqada IIIB-IIIC1	Narmer (?) – ?
AJ Phase VIII	Buto IIIc-IV	Naqada IIIB-IIIC1	Narmer (?) – ? ²
Sherds only	Buto IIIa-c	Naqada IIID1-IIIA2	
Sherds only	Buto II	Naqada IIA-IID1	
Sherds only	Buto I	Naqada IA-IC	

¹ Naqada IIID divisions are based on the preliminary chronology proposed by Koller; see D. Christiane Koller, “On the Origins of Memphis – The New Excavations in the Early Dynastic Necropolis at Helwan,” pages 296–310 in *Origins: Studies in Memory of Barbara Adams*, edited by S. Hendrickx, R.E. Friedman, K.M. Cieliewicz, and M. Chłodnicki, Orientalia Lovaniensia Analecta 128, Leuven: Peeters (2004).

² Phase VII and VIII clearly postdates the Buto-Ma’adih/Naqada transitional phase as they contain no stratified Buto-Ma’adih ceramics. Thus, they must begin no earlier than the reign of Narmer.

TABLE 2. Comparative stratigraphy between Buto and Mendes Field AJ and the proposed association with the Naqada and Dynastic chronologies.

Phase	AJ-A ext.	AJ-B ext.	AJ-U
Ia	Brick collapse Leveling fill	Brick collapse Leveling fill	Not present
Ib	AJ-A ext./Wall 99BA Burial 99A + 99B	AJ-B ext./Wall 04A Burials 04A + 04B	
IIa	Wall 04C addition	Wall in section	Not present
IIb	Wall 04E	Circular Wall 99I	
IIc	Wall 04B, 04J, 04K	Circular Wall 99I	
IIIa	Structure 99B floor raising	Structure 04B floor raising and street	Not present
IIIb	Structure 99B	Structure 04B and street	
IVa	Structure 00A floor raising	Structure 05A	Not present
IVb	Structure 00A	Structure 05A	
IVc	Wall 99W and pit	Structure 05A	
Va	Dense Sherd	Dense Sherd	Dense Sherd
Vb	Structure 01A	Unexcavated	Structure 01A addition Circular buildings
VIa	Structure 01B	Unexcavated	Structure 04A
VIb			Ruins of Structure 05B Structure 05A
VIc			Walls 05G and 05H built
VIIa	Structure 07A	Unexcavated	Structure 05B: Floor Raising, Room B
VIIb	Structure 07B		Structure 05B: Floor Raising, Room A Building of Wall 05K
VIIc	Structure 07C		Structure 05B
VIII	AJ-A ext./Wall 07M	Unexcavated	Bricks: AJ-U/211

TABLE 3. Detailed stratification of Field AJ North.

Phase VIII

Phase VIII was only reached in the last few days of excavation at the end of the 2007 season. It was partially exposed in AJ-A ext. and in AJ-U. One very denuded wall was exposed just at the southern edge of AJ-A, AJ-A ext./Wall 07M. Associated with this wall are approximately three exterior surfaces with cooking hearths and small pits suggestive of domestic space. Further exploration and interpretation of this phase will have to wait until next season. The preliminary ceramic results indicate little to no difference from the repertoire of Phase VII, with preliminary dating suggesting Naqada IIIB-IIIC1.

Phase VII (Fig. 8)

Phase VII has been divided into three sub-phases (VIIa-VIIc), encountered in AJ-A ext. and AJ-U, but not yet been reached in AJ-B ext. The sub-phasing consists of three domestic levels in AJ-A ext., all consisting of very shallowly preserved mudbrick structures (AJ-A ext./Structure 07A, AJ-A ext./Structure 07B, and AJ-A ext./Structure 07C; preserved as little as 1 cm thick in most places), pits, and hearths (see Fig. 4). The limited exposure does not allow us to draw any broad stratigraphic conclusions just yet, but it appears as though these three sub-phases are rebuilds of the same domestic space. These levels in AJ-A ext. are contemporary with the primary architecture of this

phase, AJU/Structure 05B which underwent three renovations during its life (Fig. 8).

The hearths are particularly interesting because their burn patterning allows us to reconstruct their use. Most of these hearths consist of an orange fired clay center with a black ash/charcoal ring around them (see Fig. 5). The charcoal is certainly the direct remains of burned organic fuel. The orange is the clay floor where it has come in contact with a heated vessel rather than a direct flame. The result is the firing of the clay surface. The conclusion which must be drawn is that a cooking vessel was placed on the clay surface, an organic fuel was then piled around the vessel, and finally, the fuel was burned to heat the vessel and its contents. Based on the vessels found in the area, it appears most likely that various sizes of Early Dynastic cooking pots were employed in this method. An intact cooking pot was found not far from this location (see Fig. 6) and the burn marks around its midsection conform to expectations based on this cooking model.



FIG. 4. Phase VIIa – AJ-A ext./Structure 07A.

The archaeological remains of this cooking technique are common throughout the Naqada III levels in this area. It is attested from Phase VIII through Phase V, the Early Dynastic Period levels, after which it does not appear again. As we shall see below, the transition away from this technique is primarily explained by the change in use of space from Phase V to Phase IV, that is from domestic (/administrative?) to bread and beer production. However, it is a possibility, given some of the other developments in the transition from the Early Dynastic Period to Old Kingdom that cooking technology also made significant advances and that cuisine and food ways at Mendes may also have changed.²²

Phase VII in AJ-U consists of a fairly large domestic building (AJ-U/Structure 05B) in which four rooms have been identified. The building

continues into both the south and western baulks of AJ-U. The floor of Room A show signs of domestic use. Two pits in the floor (AJ-U/147 and AJ-U/148), one of which was lined with a jar shoulder (AJ-U/147) in secondary use suggest food preparation (see Fig. 7). A round packed clay pad may have been the base for a pillar in the middle of this room.

In AJ-U/Structure 05B, Phase VIIb and VIIa raise the floors in Room A and Room B, respectively. The reason for the first of these floor raisings (Room A) seems to be two-fold. First, an infant or fetus was placed in the conical base of a jar and buried below the new floor level Fig. 7). No pit was detected and it seems most likely that the jar was placed within the floor-raising fill at the time of the raising. Second, a new wall was needed or desired to partition Room A (north from south), and so, during the floor-raising, Wall 05K was built. If the interpretation of the clay mass beneath the eastern end of this wall from Phase VIIc as a pillar base is correct, then Wall 05K alleviates the need for column base in the remodeled structure. That Room A continued in the same functional capacity after the raising is indicated by two new unlined pits which replace the two pits from the earlier phase.



FIG. 5. Cooking hearth and ash refuse pit of AJ-A ext./Structure 07A.



FIG. 6. AJ-A ext. Phase VII cooking pot as excavated.

At some point after the raising of the floor in Room A, the floor in Room B was also raised and a new packed mud floor laid (AJ-U/142). This new floor clearly goes over the revetment step between Room A and Room B and was partially preserved in Room A. As in Room A, the floor in this room was laid to accommodate the burial of a second child. These two burials and the step between the two rooms suggest that sometimes floors were raised specifically to accommodate child burials. Burial of fetuses or neonates within the settlement and domestic space appears to have been the Pre- and Early Dynastic custom in the Delta.²³

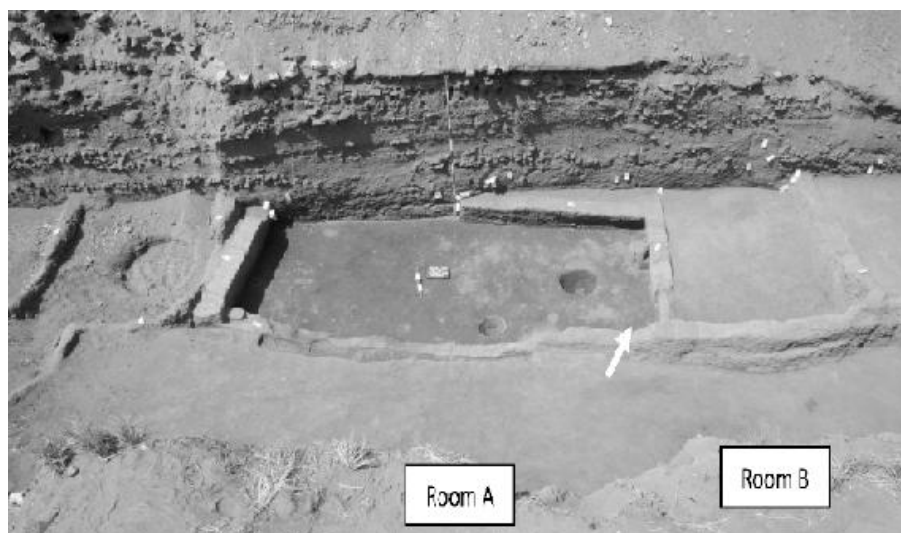


FIG. 7. Room A of AJ-U/Structure 05B. At left is AJ-A Ext./Structure 01B. Infant jar

Burial of Phase VIIb can be seen in situ in south west corner of the room (arrow).

Phase VIIa ends with a major renovation in which many of the walls of the building were dismantled and altered to suit a completely new purpose (see Phase VI, below).

Phase VII Ceramic Assemblage

Though architecturally distinct, Phases VII and VI have produced notably similar ceramic assemblages. The limited amount of ceramic material published by other expeditions to the site has yielded a very similar range of forms to those we have recovered; particularly comparable is the date from the Wenke and Brewer team.²⁴ A fairly secure ceramic date for Phases VI and VII as a group has been determined. A comparison of the entire assemblage with Buto Strata IV and V, Tell el-Farkha Phase 6–7, and Minshat Abu Omar Phase III–IV has corroborated an early-mid 1st Dynasty date for Field AJ Phase VII–VI at Mendes. This confirms our archaeological and linguistic interpretation of the seal impression of *n(s)-k3* discovered in Phase VI (see below) dating to the time of King Den in the middle of the 1st Dynasty provides the *terminus ante quem* for Phase VII (i.e. before the reign of Den; see Table 2). With the evidence of the seal and the ceramics, there can be no doubt as to the dating of these phases to the Naqada IIIC. The pottery assemblage discussed below coincides with that the assemblages at Tell es-Sakan, an Egyptian colony in Gaza which was abandoned in the middle of the 1st Dynasty,²⁵ Stratum IV/V at Buto, representing Naqada IIIC-D (0–2nd Dynasty).²⁶ It is possible to be a little more specific with the dating of these assemblages, but the complete absence of certain forms makes it difficult to separate them out into the established Naqada chronological system on the basis of pottery alone; the Naqada chronology relies so heavily on ceramics from cemetery sites whereas Field AJ is occupational in character. The Naqada III sequence, for example, is essentially designed around the development of Petrie’s Wavy-Handled jars, cylindrical jars, and other marl clay forms,²⁷ none of which Field AJ has divulged.

Bowls and bread moulds make up, by far, the majority of forms in Phase VII and VI. Generally, the two phases can be distinguished on the basis of ratio of bread moulds to other forms. Preliminary analysis indicates that the Phase VII corpus is approximately 30% bread moulds while Phase VI is approximately 85%. Bowls occur primarily in simple lip categories but are also present in the more complex thickened external lip varieties. Most of the bowls from Phases VII, VI, and V are decorated with full red slipping and a combination of pattern burnishing with horizontal, vertical, and/or diagonal strokes.

This type of decoration is a hallmark of the Naqada III period ("Dynasty 0" through the 2nd Dynasty).²⁸

A group of larger bowls, Form 68 (Fig. 9: 12), straddle the line between large bowls and pots. These rugged bowls are distinct in their thick bodies, straight sloping rim inflection, and their external thickened rim profile. Examples at Mendes have diameters from 26cm-37cm. This type is represented at Buto in Type 502,²⁹ though examples at Mendes seem to show a wider range of variations on both the thickened lip and the angle of the vessel walls. They occur almost always in the MNS C1 fabric and occasionally with a white wash. Another sporadically occurring large bowl form is Form 149 (Fig. 9: 13) with its incurving body. Like most large bowls, it occurs mainly in MNS C1. It is represented with both undecorated and pinkish-white slipped interiors.

The Flask family in Phase VI is represented primarily by very fragmentary rim sherds which give little to no indication of the overall body shape of the vessel. Since neck, shoulder, and body ratios play an important role in categorizing both flasks and vases, we have no definitive way of separating the two families with such fragmentary sherds. Comparanda from other sites does, however, give us some general clues. Most representatives of this category display thickened, folded, or rolled rims (Fig. 9: 1). Most of these types are made of finer fabrics, MNS B2a or marl. In fact, almost all imported marl vessels fall into this category. Other Flask forms such as the rounded-lip outcurving or everted rim styles (not depicted, but compare Buto Form 36³⁰) tend to be coarser in quality with MNS C1 and G fabrics. The pronounced shoulder characteristic of this type occurs on similar vessels from Minshat Abu Omar, where it is specifically dated to the 1st Dynasty.³¹ This type of vessel at Minshat Abu Omar is distinct in its fairly plain rounded lip, incurving neck with everted rim, fairly high shoulder which slopes down into a conical or semi-flat base. In some examples the base has a hole in it. This form is often decorated with crude vertical scraping on the body below the maximum diameter, but as indicated above, presence of body sherds to accompany the rims is a relatively rare phenomenon.

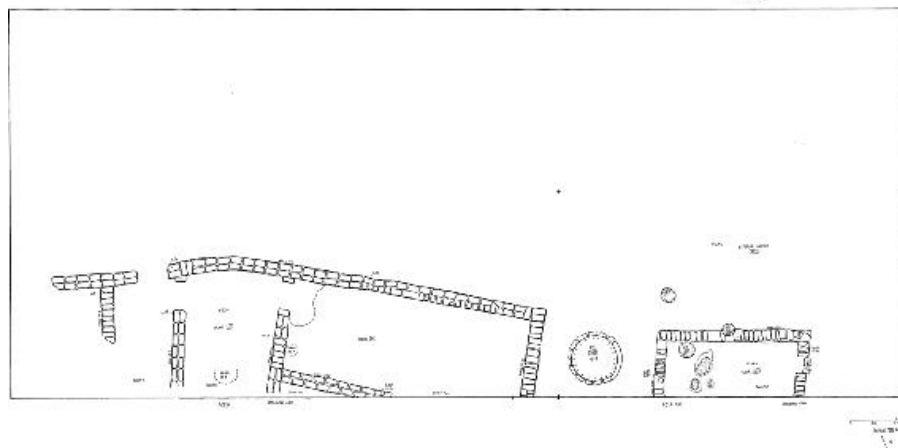


FIG. 8. Phase VIIa plan.

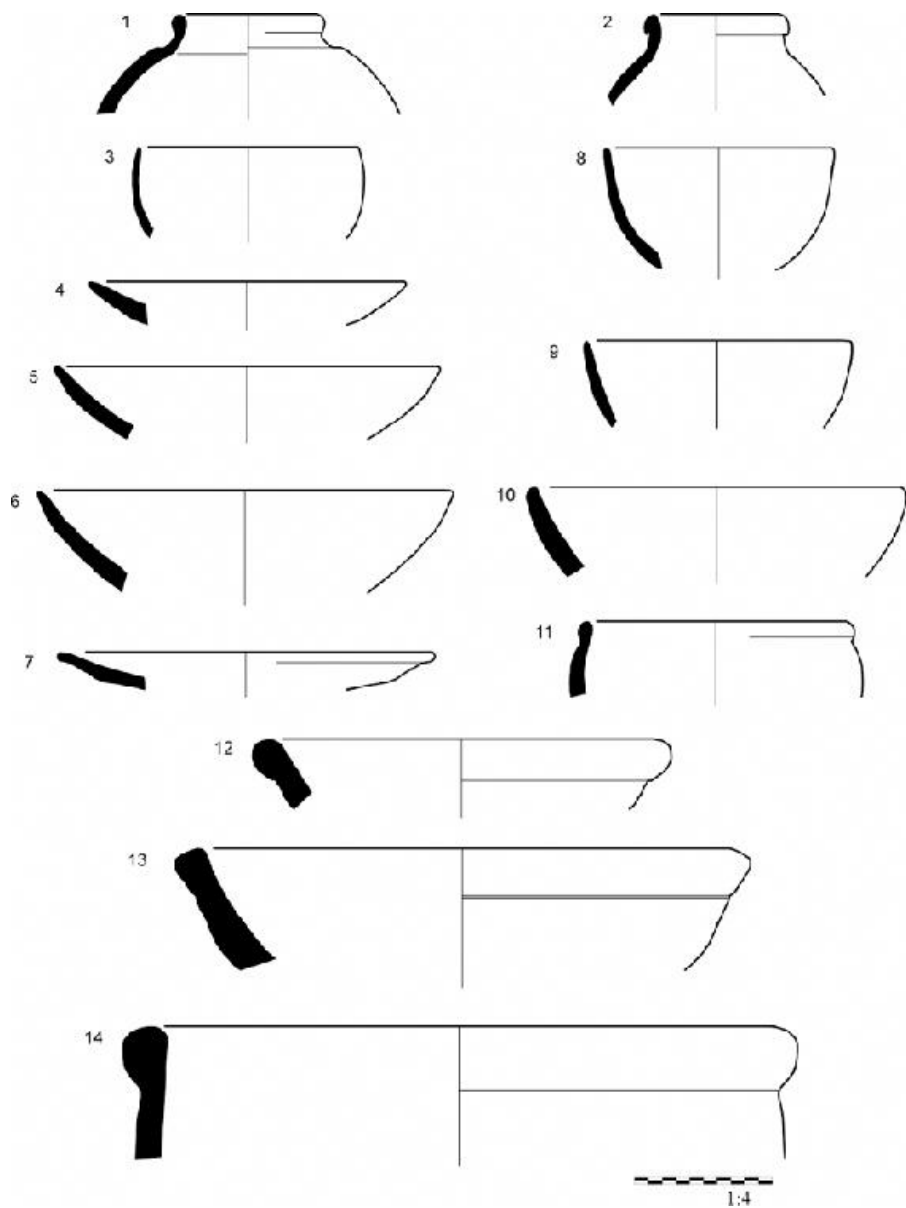


FIG. 9. Phase VII basic forms.

Figure: Number	Identification	Type	Decoration	Fabric
Figure 9: 1	AJ-U/143g.01		Exterior pinkish-white slip	MNS C1
Figure 9: 2	AJ-U/143w.01		Exterior red paint	MM ?
Figure 9: 3	AJ-U/145a.04	052	Full red slip	MM A1
Figure 9: 4	AJ-U/146g.06	055-057	Exterior red slip, interior red slip with horizontal burnishing	MNS B2a
Figure 9: 5	AJ-U/143b.01	055-057	Exterior red slip with horizontal burnishing, interior red slip with diagonal burnishing	MNS B2a
Figure 9: 6	AJ-U/146b.01	049	Full red slip with horizontal burnishing	MNS B2a
Figure 9: 7	AJ-U/146aa.05	057	Interior red slip	MNS B2b
Figure 9: 8	AJ-U/146aa.02	052	Full red slip with horizontal burnishing	MNS B2a
Figure 9: 9	AJ-U/142b.02	049	Exterior red slip with upper half horizontal burnishing, interior red slip with horizontal burnishing	MNS B2a
Figure 9: 10	AJ-U/143g.03	049	Full red slip	MNS B2b
Figure 9: 11	AJ-U/146e.01	134	Full Pinkish-white slip	MNS C1
Figure 9: 12	AJ-U/146u.07	068	Full white slip	MNS C1
Figure 9: 13	AJ-U/146g.04	149		MNS C1
Figure 9: 14	AJ-U/143r.01	023	Full white wash	MNS C1

TABLE 4. Phase VII basic forms.

Bread moulds in the Early Dynastic levels sport a wide range of morphological differences, particularly in their lips. Despite the wide range of forms present in the Early Dynastic bread mould category, they all exhibit some basic features. This shape of loaf produced by all of these moulds is hemispherical, the size varies, but the shape does not. They are all manufactured from the same fabric, MNS C1M, which is nearly invariable from sherd to sherd, and they are all coated with a full grey wash. The standardization of the fabric indicates the high degree of centrality in their manufacturing process. Almost no other distinct fabric group present at Mendes exhibits this strict standardization. A notable percentage of these moulds at Mendes have potmarks, which appear to serve an administrative function. These features of bread moulds suggest that bread making with mould technology was a state activity. If we are able to tie bread mould baking to state industry rather than private industry, then we can more fully understand the archaeological contexts in which these moulds are found.

Bread moulds are also notable for their rough exterior, especially their bases (Fig. 10), but their remarkably smooth inner surface. The inner surface is smoothed with very fine-grained clay to fill any gaps in firing so as to create an even surfaced loaf. The importance of bread for the regular diet and for cultic practices makes moulds a common form in the Egyptian repertoire. However, until relatively recently, very little attention has been given to these vessels. Not until Helen Jacquet-Gordon's study did these forms receive their due credit.³² Jacquet-Gordon created her tentative typology using published complete forms. Unfortunately, at the time of her research, the Nile Delta had received very little archaeological attention, particularly for the Early Dynastic Period. Many sub-forms present in Phase VII through Vb at Mendes are not represented in her typology.

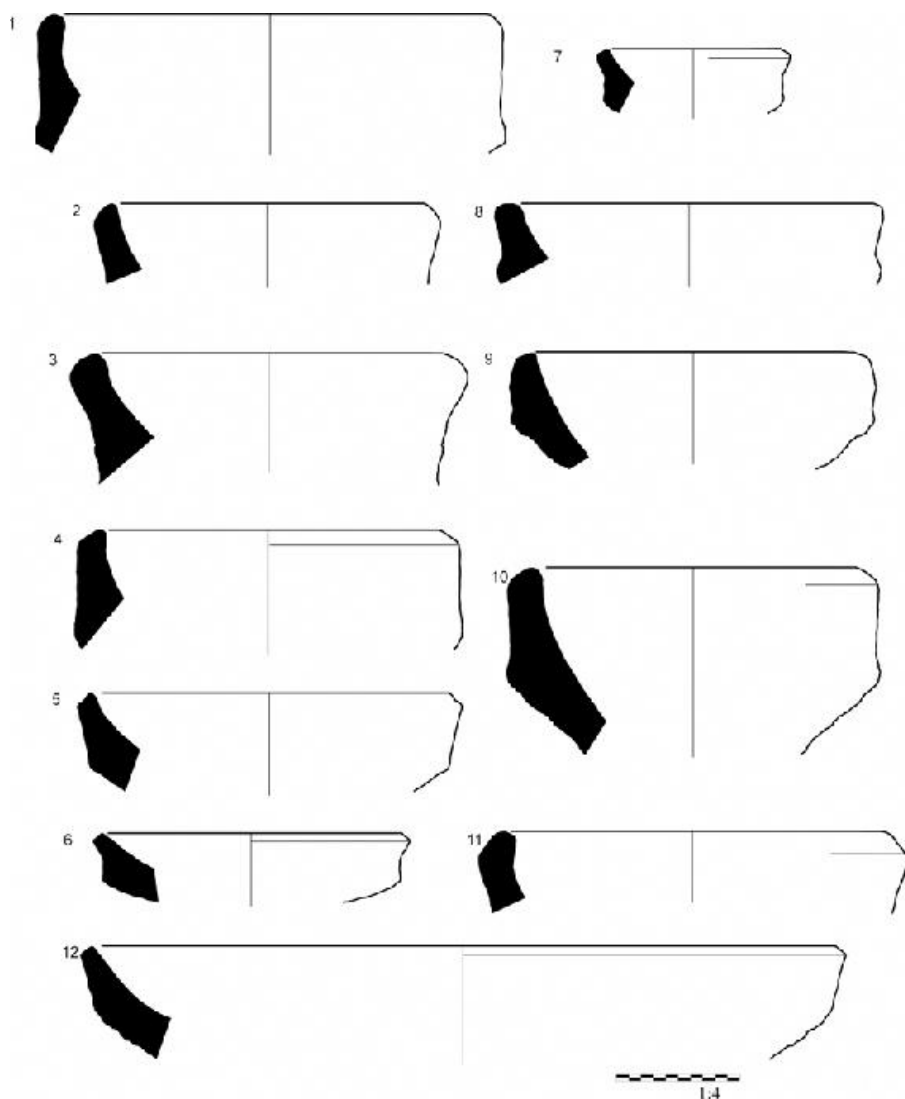


FIG. 10. Phase VII bread moulds.

Figure: Number	Identification	Type	Decoration	Fabric
Figure 10: 1	AJ-U/143m.01	62	Full grey wash	MNS C1M
Figure 10: 2	AJ-U/146f.01	138	Full grey wash	MNS C1M
Figure 10: 3	AJ-U/143a.02	62	Full grey wash	MNS C1M
Figure 10: 4	AJ-U/143h.01	86	Full grey wash	MNS C1M
Figure 10: 5	AJ-U/146f.01	86	Full grey wash	MNS C1M
Figure 10: 6	AJ-U/146y.03	133	Full grey wash	MNS C1M
Figure 10: 12	AJ-U/143v.01		Full grey wash	MNS C1M
Figure 10: 7	AJ-U/146c.04	133	Full grey wash	MNS C1M
Figure 10: 8	AJ-U/146f.02	66	Full grey wash	MNS C1M
Figure 10: 9	AJ-U/142a.01	138	Full grey wash	MNS C1M
Figure 10: 10	AJ-U/145a.01	65	Full grey wash	MNS C1M
Figure 10: 11	AJ-U/142a.03	66	Full grey wash	MNS C1M

TABLE 5. Bread moulds of Phase VII.

Very little new excavation was done in AJ-U during the 2007 season. Since most of AJ-U/Structure 05b lies to the south of the unit and we plan to excavate there in future seasons, we decided to reconstruct the walls of the building. New bricks were purchased and a brick cap was laid over top of the existing walls. These bricks and the walls were then coated with a mud and straw mortar which should preserve the building for future study (see Fig. 11). The result was quite impressive and the restored 1st Dynasty house will become an important centerpiece of future Egyptian cultural heritage and tourism strategies at Mendes.



FIG. 11. Reconstructed Phase VII First Dynasty house.

Phase VI

Phase VI has been divided into two sub-phases detected in AJ-U and AJ-A ext., but has not yet been reached in AJ-B ext. (Fig. 20). Phase VI consists of AJ-A ext./Structure 01B and AJ-U/Structures 05A (Phase VIb) and 04A (Phase VIa). In AJ-U, Phase VI saw the dismantling and remodeling of the earlier Phase VII building. The new structure (AJ-U/Structure 05A) is characterized by circular walls which also made use of the standing portions of the earlier building (Fig. 15). In AJ-A ext., the Phase VII building was also dismantled, but here it was completely rebuilt (Fig. 12 and Fig. 20). Finds within the new architecture of Phase VI are highly suggestive of administrative rather than domestic use; there is, however, one domestic peculiarity which may indicate a dual use (see below). The end of Phase VI is quite clear and sees the abandonment and subsequent filling of the area to accommodate new

architecture, albeit of a similar character. That AJ-U/Structure 04A and AJ-A ext./Structure 01B went out of use at the same time is certain (Fig. 16).

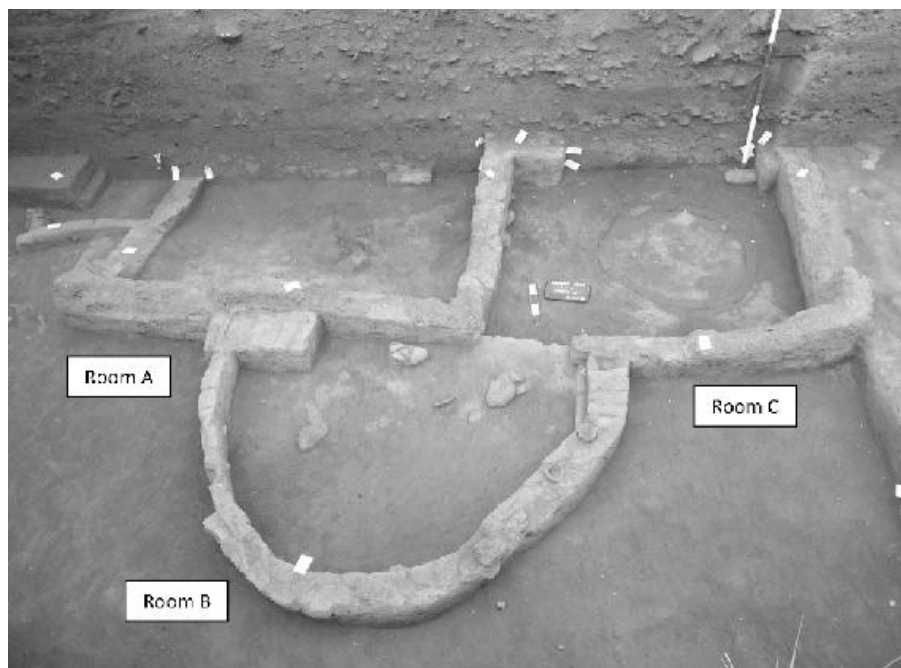


FIG. 12. AJ-A ext./Structure 01B showing burned floor surfaces in each room. Facing south.



FIG. 13. Blocked up door between Room B and Room C.

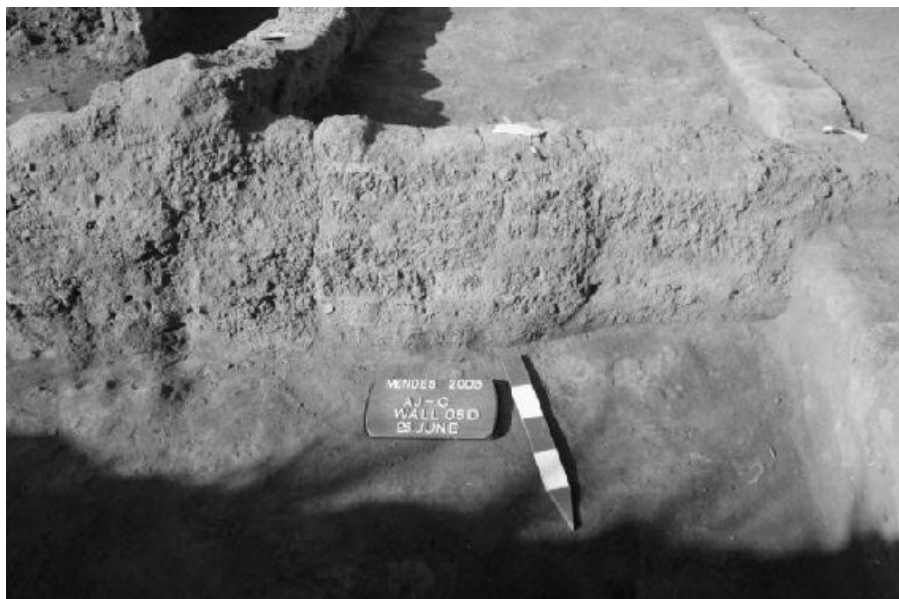


Fig. 14. Blocked up exterior door to Room C.

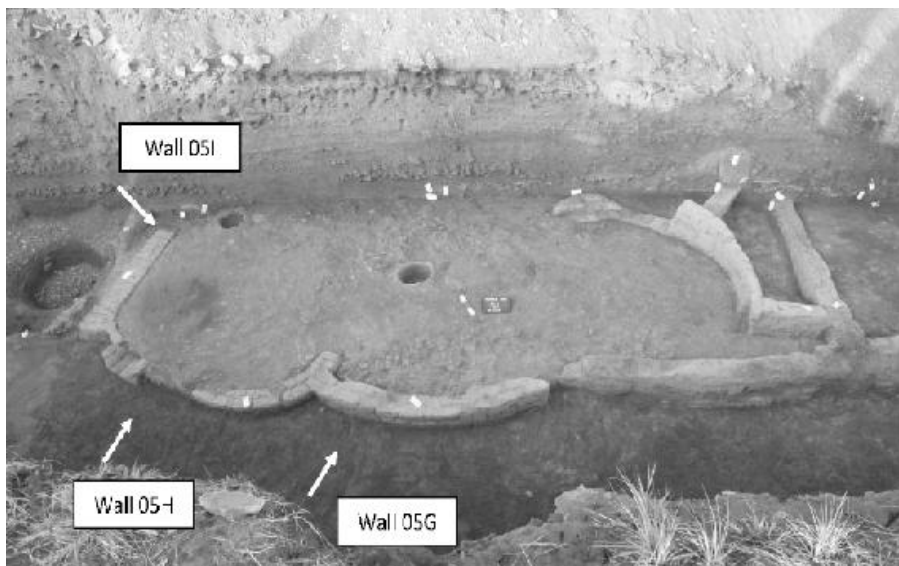


FIG. 15. Phase VIb AJ-U/Structure 05A. The curvilinear wall in the south west (upper right of photo) is the early construction of Phase VIa.



FIG. 16. Photograph of AJ-A ext. - AJ-U baulk south section. Note the pottery fill AJ-A ext./320 (white brackets) sealing walls of both AJ-A ext./Structure 01B (left) and AJ-U/Structure 05A (right) (white arrows). This is the primary evidence that both buildings went out of use at the same time.

Structure 01B in AJ-A ext. is the anchor for Phase VI as it appears to have existed almost completely unaltered throughout the phase, whereas its neighbor, AJ-U/Structure 05A of Phase VIIb was rebuilt as AJ-U/Structure 04A of Phase VIa. The AJ-A ext. building will be described first. AJA ext./Structure 01B consists of two small square rooms, Rooms A and C, with an appended semicircular room, Room B (Fig. 12 and Fig. 20). The rest of the building goes into the south baulk. Room A appears to have an exterior entrance in its east wall, in which brick from the earlier building serves as the threshold. Room C is entered from the south and provides the only access to Room B. A large brick-lined pit present in Room C in Figure 12 belongs to the earlier Phase VII.

At the time Structure 01B in AJ-A ext. was built, the Phase VII domestic building (AJ-U/Structure 05B) in AJ-U was dismantled and a new building with a new function was constructed. This building is designated AJ-U/Structure 05A. To facilitate the reuse of some architectural elements, construction of AJ-U/Structure 05A required the following alterations to the Phase VII building, here listed from east to west: 1. Most of the upper portion of the building was removed; 2. AJ-U/Wall 05I from the previous building was reused; 3. The eastern portion of AJ-U/Wall 05C was removed down to the original Phase VII floor level; 4. The door between Room B and Room C was blocked up (Fig. 13); 5. AJ-U/Wall 05D and the central portion of 05C were rebuilt over the blocked up door; 6. The exterior entrance in Room C was blocked up (Fig. 14).

After these alterations to the Phase VII plan, two new semi-circular walls, labeled AJ-U/Wall 05G and AJ-U/Wall 05H, were built in place of the removed portion of AJ-U/Wall 05C. The resulting effect was the

creation of a large area which replaced Rooms A and B of the earlier structure (see Fig. 15) and the rest of the Phase VII building went out of use being quickly covered with midden consisting primarily of bread mould sherds.

The original surface levels were excavated with the Loci AJ-U/135 and AJ-U/134. But the surface levels throughout Phase VI accumulated over time as debris, refuse, and ash built up, so that the entire phase, despite architectural modifications, is a slow accumulation of surface material without any punctuation in occupational material. As debris accumulated through use on the floors of Loci AJ-U/135 and AJ-U/134, the northeast portion of the building, Locus AJ-U/137, remained a designated hearth area. Pits were regularly dug, covered by subsequent occupation, and new pits created.



FIG. 17. Seal impression of N(s)-k3.



FIG. 18. Walter B. Emery, *Great Tombs of the First Dynasty I* (Cairo, 1949).

Phase VIa is marked by the construction of a second set of semi-circular walls (AJ-U/Structure 04A) to replace the Phase VIb structure

that are nearly circular (relative to the AJ-U/Structure 05A) and share a common entrance (see Fig. 19). These two circular rooms were labeled Room A (eastern) and Room B (western). The two rooms opened to the south, where the floor of their common entrance was composed of packed mud; no laid floor, however, was created within the circular rooms. The surfaces within these structures, like their Phase VIb counterparts, continued to build up over time, and the final phases of the floor and show signs of extensive surface burning from hearths, almost identical to the floor surfaces in AJ-A ext./Structure 01B.

Though model granaries and depictions of grain silos on tomb walls from the Old Kingdom are characterized by circular architecture, storage of grain in our Phase VI buildings would not have been practical. They almost certainly had a shared entrance from the south into which a person could have walked; there was nothing to prevent the grain from emptying out the entrance. Additionally, the evidence of burning within these structures and the occurrence of pits suggests a regularly used hearth space. A strong architectural parallel comes from the 4th Dynasty town at Giza. There, the remains of seven circular structures associated with an administrative building were discovered.³³ Like the building of Phase VIa, they were 2.50–3.00 meters in diameter and in one case (according to the published plan) two of these circular buildings shared a wall and have a common entrance.³⁴ In the later models of granaries and in the parallel at Giza, these structures are surrounded by a parapet from which grain could have been dumped through the roves. The Phase VI structures were certainly built at ground level, and no such parapet exists. In all rooms of both buildings in Phase VIa, we see traces of firing everywhere on the packed clay floors. The floor surface is characterized by extensive burning extending throughout with a fired clay surface appearing as orange, white, and black streaks (see Fig. 19). The surface burning and ash inside the structure is consistent with cooking/baking activity (see above, Phase VII). The thick middens outside of this building, particularly on the east side, consist primarily of bread mould fragments. At present, the most logical interpretation is that the circular structures housed bread baking activities. At this point, however, the significance of using circular architecture as opposed to rectangular architecture is not clear. Future seasons will concentrate on excavation of the south portion of this building.

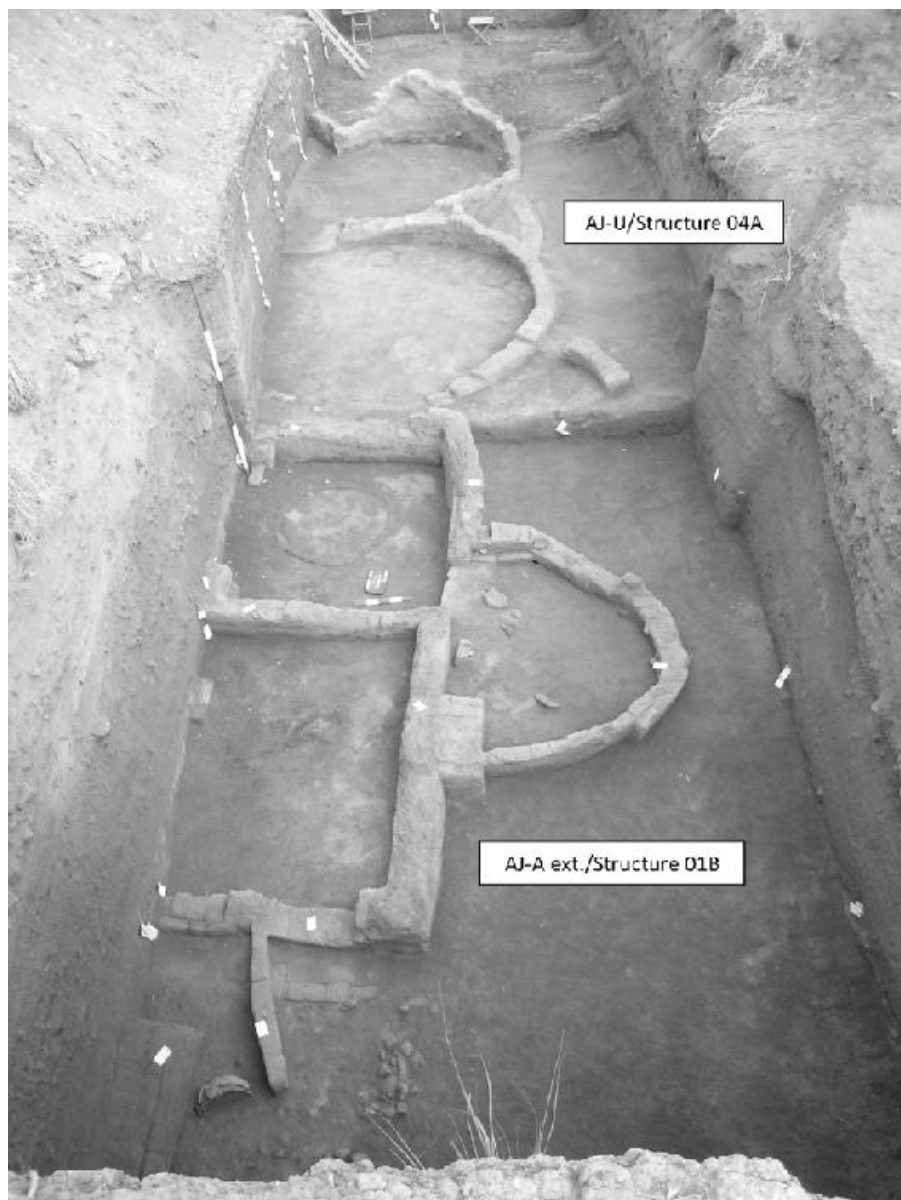


FIG. 19. Phase VIa architecture: AJ-A ext./Structure 01B and AJ-U/Structure 04A.

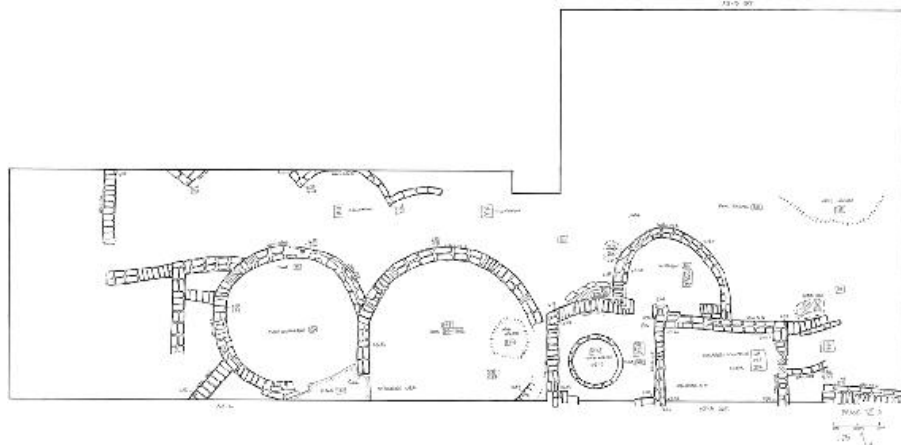


FIG. 20. Phase VIa plan.

The Phase VI loci have yielded a number of seal impressions. One of these was found in the circular AJ-U/Structure 04A (Phase VIa) pointing to a 1st Dynasty date around the time of King Den (See Fig. 17). The dating was ascertained by comparison to an impression discovered in Walter Emery's excavations at Saqqara at Tomb X, belonging to one *n(s)-k3* of Emery's Tomb X,³⁵ which also contained several impressions of King Den (See Fig. 18).

At the end of Phase VIa, AJ-A ext./Structure 01B and AJ-U/Structure 04A fell out of use. Providing the best stratigraphic link between the two structures is pottery fill of Locus AJ-A ext./320 which clearly sealed the walls of both buildings (see Fig. 16). The cause of their abandonment has not yet been ascertained.

Phase VI Ceramic Assemblage

The ceramics and cylinder seal impressions from this phase point to an Early Dynastic date for Phase VI. One of the seal impressions indicates a 1st Dynasty date around the time of King Den (see above). In this phase we find a remarkable ceramic assemblage which provides exciting insight into Early Dynastic production and use. Archaic bread moulds abound, representing an estimated ~70% of all sherds from this phase. Other than the increase in bread moulds, most forms continue in use from Phase VII through VI.

Figure: Number	Identification	Type	Decoration	Fabric
Figure 21: 1	AJ-U/1351.04	052	Full red slip, exterior horizontal burnishing top only, interior horizontal burnishing	MNS B2a
Figure 21: 2	AJ-U/89c.04	153	Full red slip	MNS B2b
Figure 21: 3	AJ-A ext./339c.04	049	Full red slip	MNS B2b
Figure 21: 4	AJ-U/89c.02	051		MNS C1
Figure 21: 5	AJ-U/126s.04	057	Exterior red slip, interior red slip with horizontal burnishing	MNS B2a
Figure 21: 6	AJ-U/134b.03	070	Full red slip	MNS B2b
Figure 21: 7	AJ-U/135j.02	057	Exterior red slip, interior red slip with horizontal burnishing	MNS B2a
Figure 21: 8	AJ-A ext./294a.07	064		MNS B2b
Figure 21: 9	AJ-U/126s.01	057		MNS B2b
Figure 21: 10	AJ-U/126q.01	050	Full red slip	MNS B2a
Figure 21: 11	AJ-U 31a.01			MNS B2a
Figure 21: 12	AJ-U/135g.06	150	Full red slip with horizontal burnishing	MNS B2b
Figure 21: 13	AJ-U/126ac.02	118	Exterior whitish-pink slip	MNS B2b
Figure 21: 14	AJ-U/88h.10	122		MNS B2b
Figure 21: 15	AJ-U/88i.03			MNS C1

TABLE 6. Bowls and dishes of Phase VI.

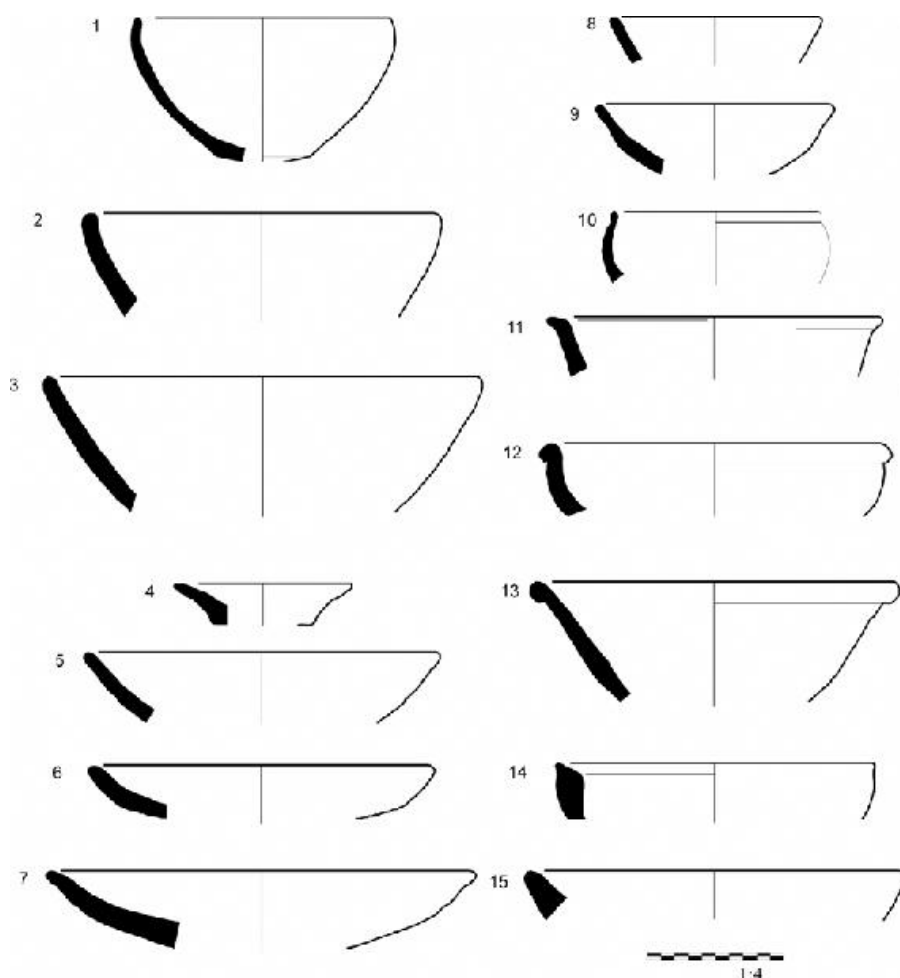


FIG. 21. Phase VI bowls and dishes.

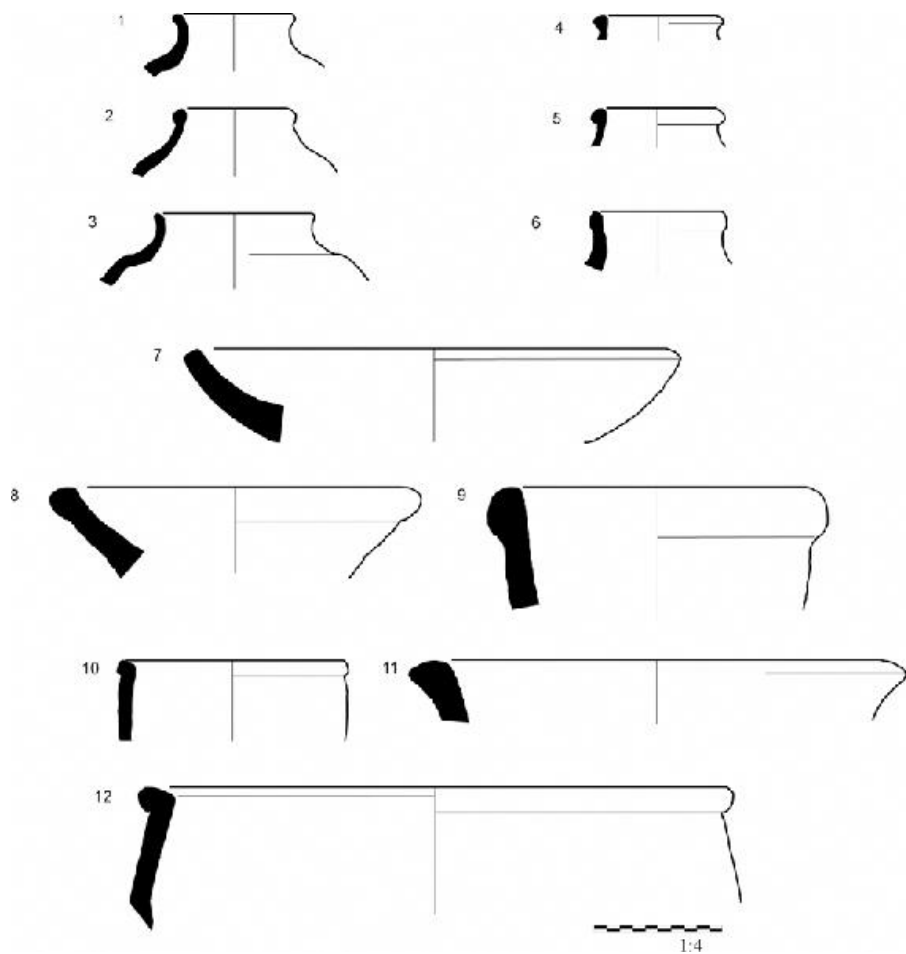


FIG. 22. Phase VI flasks, large bowls, and pots.

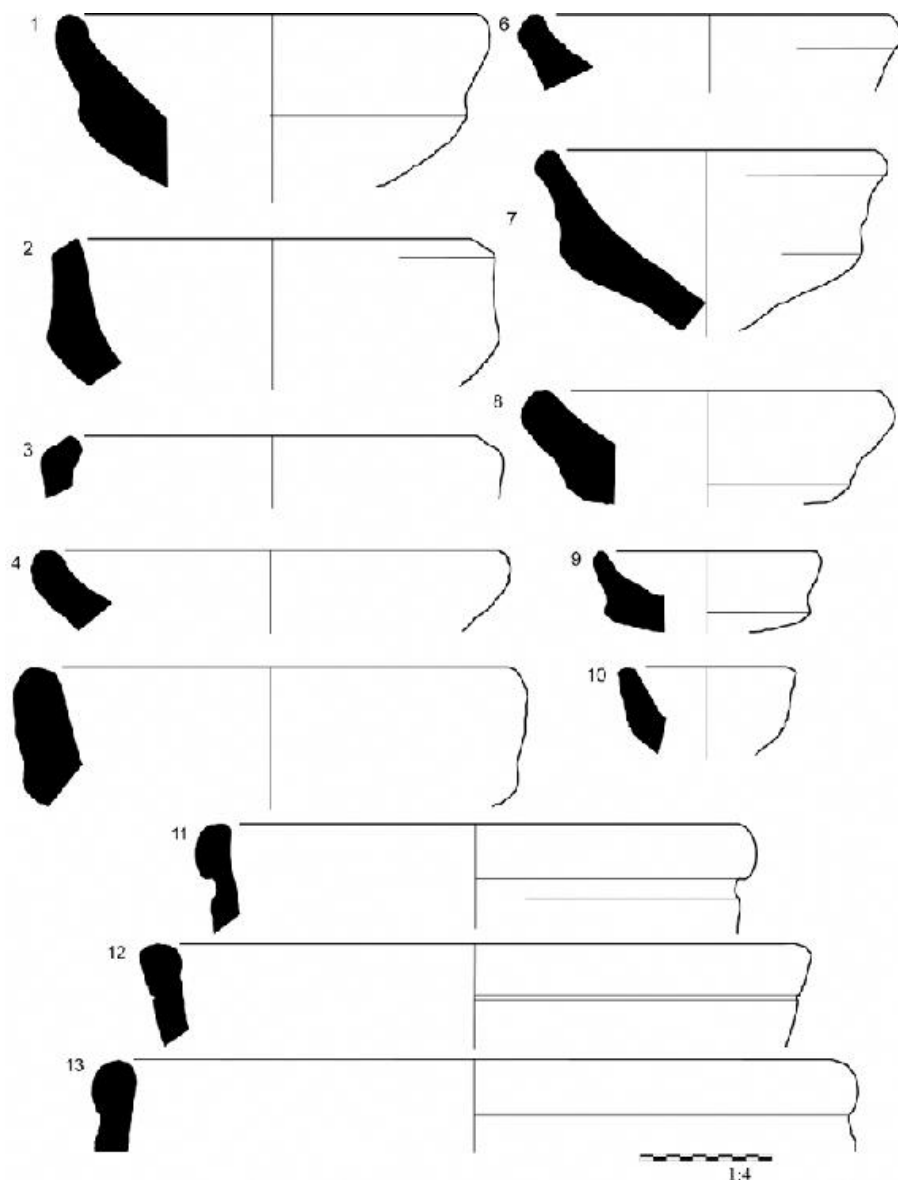


FIG. 23. Phase VI bread moulds and tureens.

Figure: Number	Identification	Type	Decoration	Fabric
Figure 22: 4	AJ-U/88f.2	094		MNS G
Figure 22: 1	AJ-U/88a.2	155		MNS C1
Figure 22: 2	AJ-U/135d.2	057		MNS B2b
Figure 22: 3	AJ-U/90a.3	116		MNS C1
Figure 22: 5	AJ-U/88a.3			MM
Figure 22: 6	AJ-U/88a.3			MNS G
Figure 22: 7	AJ-U/88a.01		Full red slip	MNS C1
Figure 22: 8	AJ-U/88b.01	068		MNS C1
Figure 22: 9	AJ-U/88i.05	023	Full white slip	MNS C1
Figure 22: 10	AJ-U/88a.02	158	Exterior white wash	MNS B2a
Figure 22: 11	AJ-U/88a.04	093	Full white slip	MNS C1
Figure 22: 12	AJ-U/26a.02	152	Full pinkish-white slip	MNS C1

TABLE 7. Flasks, large bowls, and pots from Phase VI.

Figure Number	Identification	Type	Decoration	Fabric
Figure 23: 1	AJ-A ext./339c.3	047	Full grey wash	MNS C1M
Figure 23: 2	AJ-U/135c.1	086	Full grey wash	MNS C1M
Figure 23: 3	AJ-U/134c.6	059	Full white slip	MNS C1M
Figure 23: 4	AJ-A ext./229c.3		Full grey wash	MNS C1M
Figure 23: 5	AJ-U/90b.1	024	Full grey wash	MNS C1M
Figure 23: 6	AJ-A ext./339c.2	066	Full grey wash	MNS C1M
Figure 23: 7	AJ-U/89f.6		Full grey wash	MNS C1M
Figure 23: 8	AJ-A ext./339b.2	047	Full grey wash	MNS C1M
Figure 23: 9	AJ-U/126f.2	144	Full grey wash	MNS C1M
Figure 23: 10	AJ-U/88a.8		Full grey wash	MNS C1M
Figure 23: 11	AJ-A ext./339c.01	023	Interior white wash	MNS C1
Figure 23: 12	AJ-U/84d.01	023		MNS C1
Figure 23: 13	AJ-U/100a.01	023	Full white wash	MNS C1

TABLE 8. Phase VI bread moulds and tureens.

Phase Vb

Phase V has been divided in to two sub-phases. The later of these phases, Phase Va, is a fill layer densely packed with pottery sherds which overlaid the rest of the Phase V architecture. This fill is of particular importance and will be discussed separately, below. The architecture of Phase Vb has been difficult to sub-stratify. Phase Vb consists of AJ-A ext./Structure 01A and a number of curvilinear walls not physically connected to the building which represent the remains of bread producing or storage buildings comparable to the circular buildings of Phase VI (Fig. 25). Unfortunately, these curvilinear walls have been rebuilt so often that their chronology has been difficult to reconstruct. Generally, the use of space in this phase is consistent with that of Phase VI and both ceramic and artifact finds continue the earlier tradition. In both phases, bread production in the vicinity has left bread mould sherds as the primary refuse component, and evidence of administrative activity is clear from the presence of seal impressions and bread mould potmarks.

The primary feature of Phase Vb is AJ-A ext./Structure 01A which consists of three rooms: Room A, Room B, and Room C. Most of this building is located in the south baulk, but a portion of two rectangular rooms, Room A and Room B, and a semi-circular room C, are extant in AJ-A ext. Access to Room C was via a stepped opening in AJ-A ext./Wall 01P of Room A. The mud-packed surfaces in these rooms were difficult to distinguish from the overlying brick debris, but it did not appear that much (if any) occupational debris was left in the building at the end of its use. Construction and occupation to the north of AJ-A ext./Structure 01A consists of a number of curvilinear walls of relatively low quality.

In AJ-U, the Phase VI architecture was abandoned and left to be filled with garbage. An outdoor surface at the same ASL as the base of AJ-A ext./Structure 01A overtop this garbage fill was established and a make-shift circular structure was constructed in the northwest of AJ-U. The surface was covered with a number of ashy lenses. The ruined Phase VI wall AJ-U/Wall 04A protruded from this exterior surface.

The make-shift circular structure used the still standing AJ-U/Wall 03C from Phase VII and added a new wall, AJ-U/Wall 03A. This new structure created with AJ-U/Wall 03C remained in use for the duration of Phase Vb. After some time, a new double semi-circular wall was constructed, AJ-U/Wall 04B, in the southeast corner of AJ-U. Presumably, this wall was in some way appended to Room C of AJ-A ext./ Structure 01A, but excavation of the baulk, in which the material relevant to this relationship is located, did not provide a clear connection.

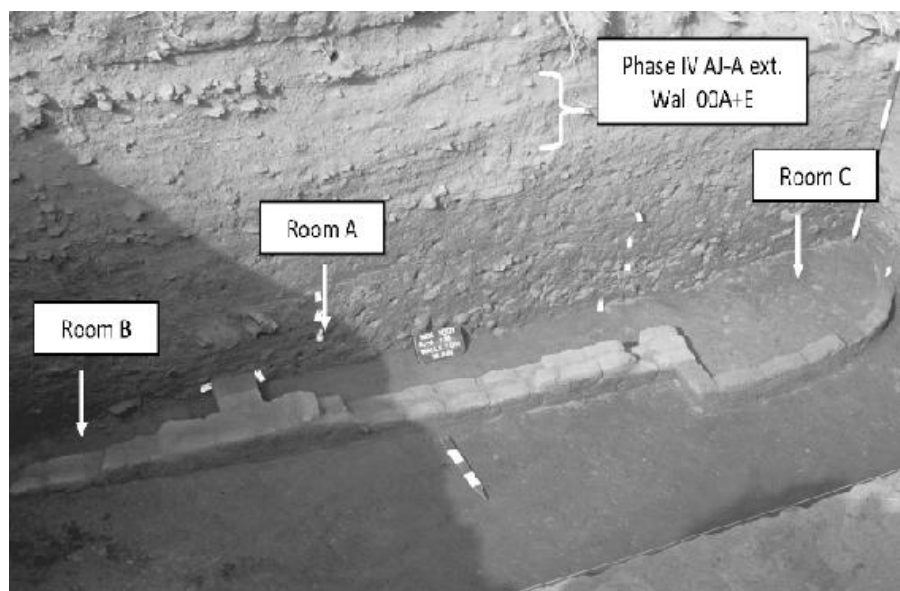


Figure 24. Phase Vb's AJ-A ext./Structure 01A with overlying Dense Sherd Layer and the Phase IV architecture above.

All of Phase Vb seems to have been abandoned for an indeterminable amount of time. At some point later, the abandoned structures of Phase Vb were covered by a thick fill of Phase Va known as the Dense Sherd Layer (discussed below). A period of abandonment must also be hypothesized in order to account for the change in ceramic assemblage from Phase V to Phase IV. Phase IV begins a new tradition in which Old Kingdom forms overlap with Early Dynastic forms. One might expect a more gradual introduction of Old Kingdom forms than is evidenced by the transition to Phase IV. Therefore, Phase V must have been abandoned for a period of time during which the beginnings of this transition are occurring in the late Early Dynastic Period. By the time we pick up again with Phase IV, the transition from an Early Dynastic typology to an Old Kingdom typology is already well underway.

The assemblage of Phase Vb is difficult to distinguish from Phases VI, though the architectural shift is quite certainly clear. From Phase VI to Phase Vb, we may be seeing the progression from Naqada IIIC through Naqada IIID, but with the data collected thus far, we are unable to refine our ceramic chronology. Future seasons promise to expose more of this transitional period. Until then, we have tentatively dated this level to Naqada IIIC2-IIID2, the late 1st–2nd Dynasty, with the caveat that during much of the IIID period, Mendes may have been a significantly smaller city. As we shall argue below, the ‘unification’ of Egypt by Khasekhemway brought with it a revival of the town in Phase IV.

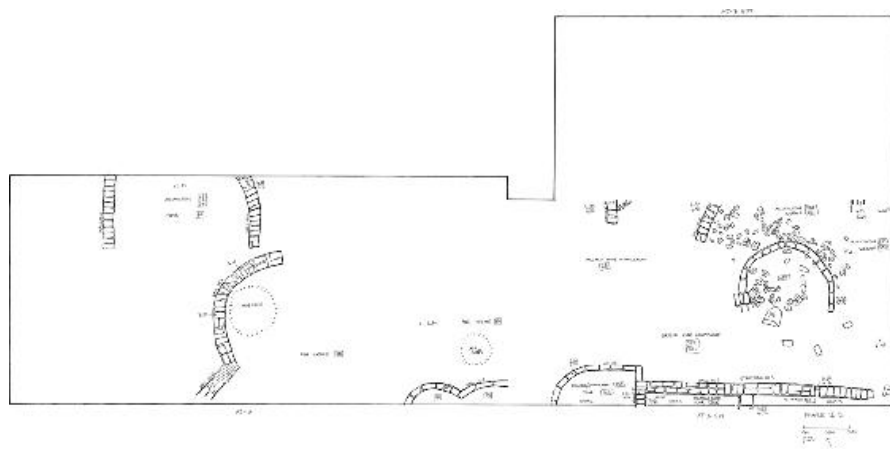


FIG. 25. Phase Vb plan.

Figure: Number	Identification	Type	Decoration	Fabric
Figure 26: 1	AJ-A ext./290d.06			
Figure 26: 2	AJ-A ext./290g.09	070		MNS B2b
Figure 26: 3	AJ-A ext./290p.11	049	Exterior red slip; interior RS/ horizontal burnishing at top and vertical burnishing at beneath	MNS B2a
Figure 26: 4	AJ-U/073a.04	051		
Figure 26: 5	AJ-U/104w.02	051		
Figure 26: 6	AJ-A ext./290g.08	055	Interior red slip w/ horizontal burnishing	MNS B2
Figure 26: 7	AJ-A ext./290p.10	055	Interior red slip	MNS B2b
Figure 26: 8	AJ-A ext./290l.01	064	Full red slip	MNS B2b
Figure 26: 9	AJ-A ext./290h.02	067	Interior red slip	MNS B2b
Figure 26: 10	AJ-A ext./290g.10	069	Full red slip	MNS G (?)
Figure 26: 11	AJ-A ext./290p.03	079	Full thick white slip	MNS C1b
Figure 26: 12	AJ-A ext./290l.06	059		MNS C1

TABLE 9. Bowls, dishes, and pots of Phase Vb.

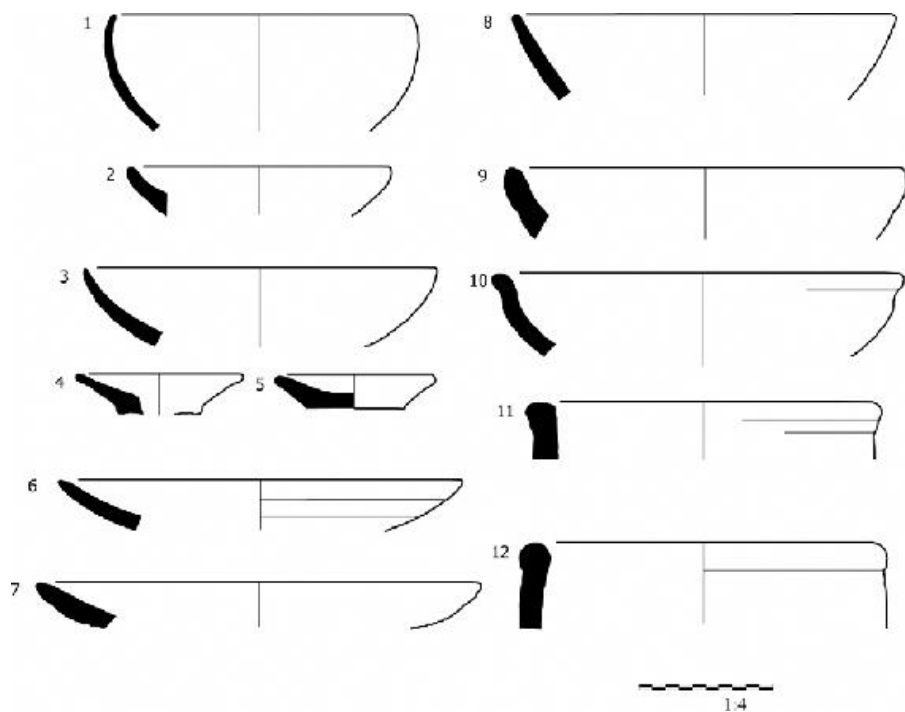


FIG. 26. Phase Vb Bowls, dishes, and pots.

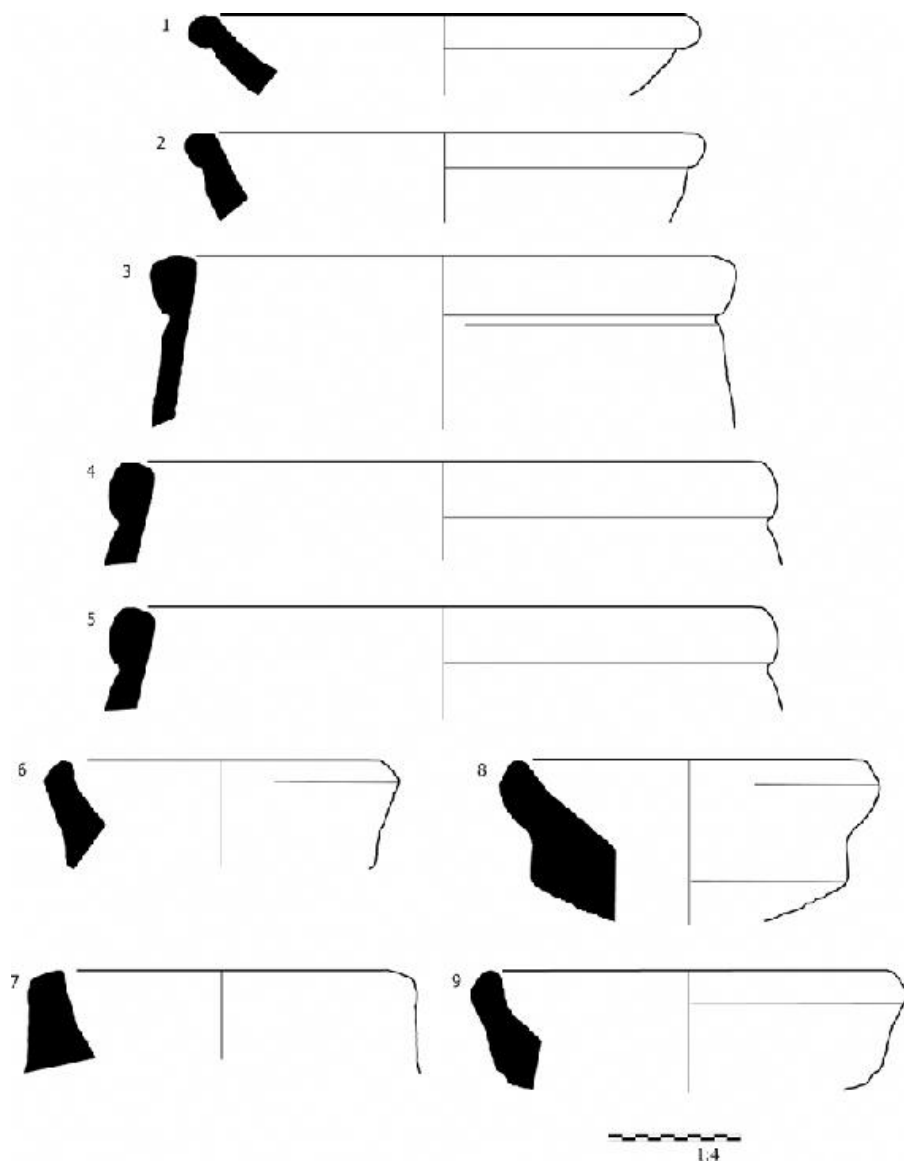


FIG. 27. Phase Vb large bowls, tureens, and bread moulds.

Figure: Number	Identification	Type	Decoration	Fabric
Figure 27: 1	AJ-U/104as.01	068		MNS C1
Figure 27: 2	AJ-U/84k.05	068		MNS C1
Figure 27: 3	AJ-U/88c.09	023		MNS C1
Figure 27: 4	AJ-A ext./290n.04	023		MNS C1
Figure 27: 5	AJ-A ext./290n.01	023	Full white wash	MNS C1
Figure 27: 6	AJ-A ext./290q.05	066	Full grey wash	MNS C1M
Figure 27: 7	AJ-A ext./290i.07	065	Full grey wash	MNS C1M
Figure 27: 8	AJ-A ext./290i.09	047	Full grey wash	MNS C1M
Figure 27: 9	AJ-A ext./290i.09	066	Full grey wash	MNS C1M

TABLE 10. Large bowls, tureens, and bread moulds of Phase Vb.

The Dense Sherd Layer: Phase Va

Phase V comes to an end with the abandonment of its constituent architecture. The buildings are abandoned for an indeterminate period of time and the area is given over to serve as a dumping site in which a fill approximately one meter deep is deposited. Most of the lenses within this deposition are characterized by a high density of ceramic material and brick debris and for that reason this level has been called the “Dense Sherd Layer”. Most of the pottery in the Dense Sherd Layer is Naqada III in date, but a relatively high percentage of Naqada II sherds were found interspersed with the later sherds. This includes several examples of “Rocker-stamp” decorated pottery, which has been identified at Buto as a hallmark of the Naqada IIB (see Fig. 28).³⁶ Also characteristically present are large sherds of extremely coarse ceramic fired basins (Fig. 29, Fig. 30, Fig. 31). These sherds are ubiquitous throughout the fill and occur evenly distributed both horizontally and vertically. In shape they approximate the profile of Early Dynastic Bread moulds with a tall rim and a very rough conical base, but they are significantly larger with diameter estimates ranging from 50–80 centimeters. Unlike the inside of the vessel and the rim, the base is black from lack of oxygen during the firing process, suggesting that it may have been fired *in situ*. Similar sherds were found by Wenke and Brewer in their sondages at Mendes. They may also have found how they were used *in situ*: “One hearth measuring 80cm in diameter had been set into a depression constructed in a mudbrick platform. The hearth basin was then modeled from Nile mud mixed with straw and fired in place.”³⁷ There can be little doubt that these basin installations are the large sherds discovered in the Dense Sherd Layer. What makes this most important is the fact that they are actually architectural elements rather than portable ceramic vessels. This means that they could only have been deposited once the architecture had been dismantled. Their ubiquitous presence in this fill would suggest that they were removed *en masse* from their *in situ* location.

The NYU excavations, too, encountered this dense sherd layer. Near the mastaba of Aha-pw-ba, on the east side of the temple mound (Fig. 3), they reported “dark, sherd-filled, dumped debris” for levels 1976/78 1–4 which covered Early Dynastic architecture. They report that it sloped down from west to east as would be expected if it were being dumped from the construction zone between the mastabas and Field AJ North.³⁸



FIG. 28 . Fragment of rocker-stamp decoration from the Dense Sherd Layer, Phase Va.



FIG. 29. Basin fragment from the Dense Sherd Layer (Phase Va).



FIG. 30. Typical basin fragments from the Dense Sherd Layer (Phase Va).



FIG. 31. Basin Fragment from the Dense Sherd Layer

In 1996, a unit was sunk in the middle of the 18th/19th Dynasty temple with the intent of exploring down to the local water table. In 1999, this unit was expanded and the foundation sand for the New Kingdom architecture was removed.³⁹ The team discovered that the foundations penetrated to a depth of two meters, cutting into a large Old Kingdom building.⁴⁰ Over the course of the 1999–2001 seasons, this large building was exposed as a solid massive mud-brick platform⁴¹ extending east-west possibly as far as the width of the later New Kingdom Temple (c. 40 meters).⁴² The NYU expedition appears to have revealed part of this structure, but interpreted it as subfoundation for the New Kingdom Temple.⁴³ Two rectangular depressions on the surface might suggest that the current surface is

the original surface, and that when the New Kingdom foundations were excavated this surface suggested itself as a logical base for the sand fill. Redford revealed the northern face of the platform and an abutting (not bonded) “semi-circular mound of earth and rubble, cased in a ‘skin’ of brick, one brick thick (see Fig. 32).”⁴⁴

This protuberance forms the focus, in fact a concentric centrepoint, for a courtyard about 20 meters wide [if measured along the face of the platform] and bounded by curvilinear walls lying to the north of the platform [approximately 9 meters from the face of the brick-skinned bastion]. These walls are only about 1 metre in height, and appear to separate off a higher ground level to the north from surface of the temple court.⁴⁵



FIG. 32. Semi-circular center-point of the court attached to the northern face of the mudbrick platform (end of the 1999 season). Field AJ North is just out of the picture to the right (west). Photo facing south.

This semi-circular terraced court at the base of the huge platform is enigmatic, but it seems logical, based on the fact that this is the location of all later temples, to associate it with a contemporary temple.

Assuming that the Dense Sherd Layer can be attributed to the construction of the platform, a date for this construction can be estimated based on the stratigraphy of the Dense Sherd Layer construction fill. Phase V has been dated to Naqada IIIC2–IIID, late 1st/early 2nd Dynasty, based on the ceramics. Ceramics from Phase IV, the first architecture built on top of the Dense Sherd Layer, contain a transitional typology in which Early Dynastic forms continue in use

while classic Old Kingdom forms begin to appear, suggesting a 3rd Dynasty date (see below). The deposition of the Dense Sherd Layer and the construction of the platform, then, fall approximately into the late 2nd Dynasty/early 3rd Dynasty. The construction project, then, should probably be assigned to either Khasekhemwy or Netjerikhet, but we patiently await inscriptional confirmation of this hypothesis. The platform existed into the late Old Kingdom, when it was destroyed in a cataclysm which marks the end of Old Kingdom prosperity at Mendes.⁴⁶

The epitome of the Ptolemaic chronicler Manetho contains a strikingly parallel note under Kaiechos of his 2nd Dynasty:

“Kaiechos, for 39 years. In his reign the bulls, Apis at Memphis and Mnevis at Heliopolis, and the Mendesian He-goat were thought to be⁴⁷ gods.”⁴⁸

Given that the later New Kingdom temple was located directly above the platform, it is reasonable to hypothesize that the platform was in some way part of the contemporary temple complex. This situation is paralleled at Hierakonpolis where the “circular revetment” was built over by the later Old Kingdom sacred structure. The convergence of this Manethonian morsel with the archaeological data is particularly exciting.

If the Dense Sherd Layer can indeed be interpreted as construction debris, then the surfaces described above, that were apparent sporadically throughout the layer, may represent work surfaces during the construction of the platform. With the final deposition of the layer, AJ-U ceases to be occupied and the new architecture of Phase IV is built only in AJ-A ext. and AJ-B ext. This new construction is close to the mudbrick platform. The use of space within the entire vicinity of the platform changed following its construction, and until after the First Intermediate Period, any new construction and activity was limited to the immediate environs of the platform. The great mound, upon which the New Kingdom temple was later built, is the result of this localized construction activity.

Phase IV

Phase IV consists of three sub-phases (Phase IVa, IVb, and IVc) built upon the Dense Sherd Fill and representing occupation at the site contemporary with the earliest usage of the massive mudbrick platform. Two major structures have been identified: AJ-A ext./Structure 00B (see Fig. 31) and AJB ext./Structure 05A (see Fig. 35), each of which underwent minor renovations in each sub-phase (Fig. 37). Between the two buildings was a three centimeter-thick mud-packed exterior floor (AJ-B ext./170). Phase IVb is the most representative of this Phase as it is the best preserved (Fig. 37). This

Phase IVb in AJ-A ext./Structure 00A consists of three rooms: Room B, Room C, and Room D.⁴⁹ Access from Room B to Room D was by way of a door way in AJ-A ext./Wall 00C+G that was blocked up in the subsequent phase. The original floor in Room B seems to have been approximately 10cm lower than Room C and would have required a step down from Room C.



FIG. 33. AJ-A ext./Structure 00A.

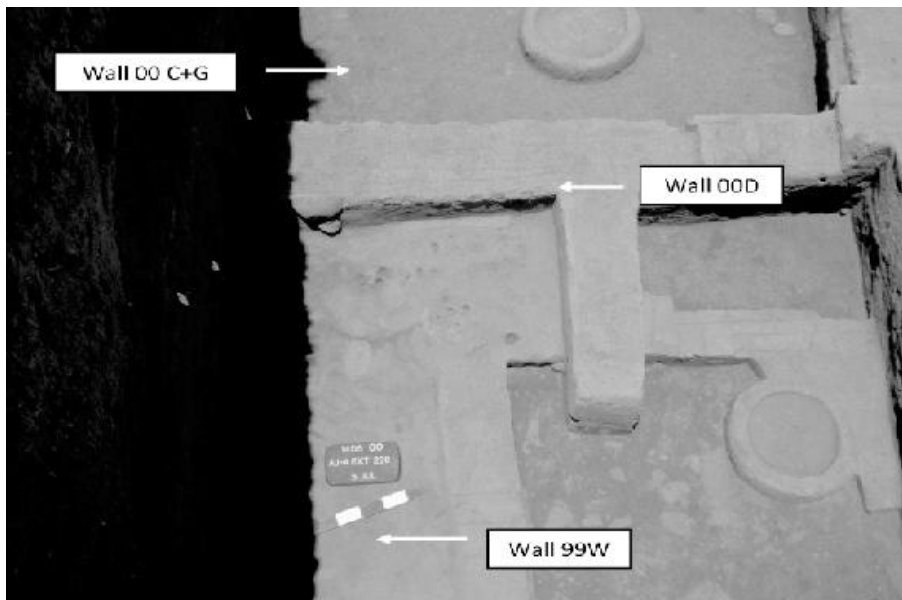
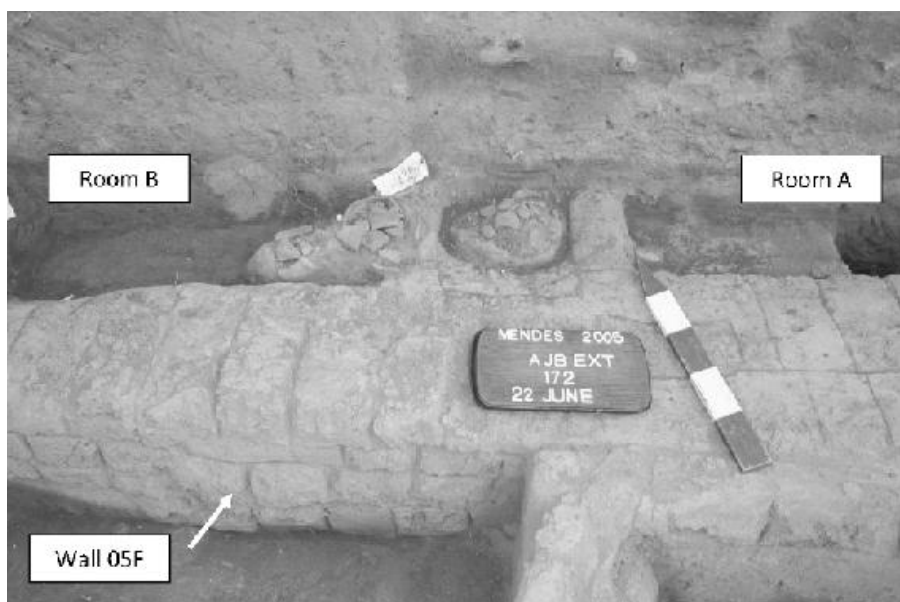


FIG. 34. AJ-A ext. showing Phase IVb architecture with Phase IVc beneath and Ash installation of Phase IVb.

Generally, the presence of several clay-lined pits, basins, hearths and ash refuse deposits attest to food preparation in both structures. The most substantial piece of evidence for activity is the AJA ext./247 ashy deposit in Room C. Within the ash are ceramic cylinders intentionally placed upright (see Fig. 34). Their function is not clear, but it may have been to hold a vessel above the flame. As ash accumulated, they became part of the ash deposit.



FIG. 35. Phase IVb in AJ-B ext. The circular feature attached to the intersection of Walls 05J and 05K belongs to Phase III.



AJ-B ext./Structure 05A (see Fig. 35) also provides evidence for food preparation with clay-lined pits and ashey hearths. The accumulation of earthen debris and ash south (i.e. outside) of AJ-B ext./Wall 05F during the Phase IVb warranted the regular creation of a new floor surfaces, but the area retained the same character of activity. Two sets of walls (Walls 05J, K, M and Walls 05G, H, I) serve to cordon off activity space, but other than the general presence of ash mixed in with the earthy deposits, the nature of this activity is not clear. Two other installations suggest industrial activity: AJ/B ext./Wall 05N disappears into the eastern baulk but contained charred organic remains indicative of in situ fire and in the south east corner of the square is a brick lined basin designated AJ-B ext./Wall 05C. This semi- feature contained a thick ashy layer overtop a thin white lens of phytolith (Fig. 35, lower left corner).

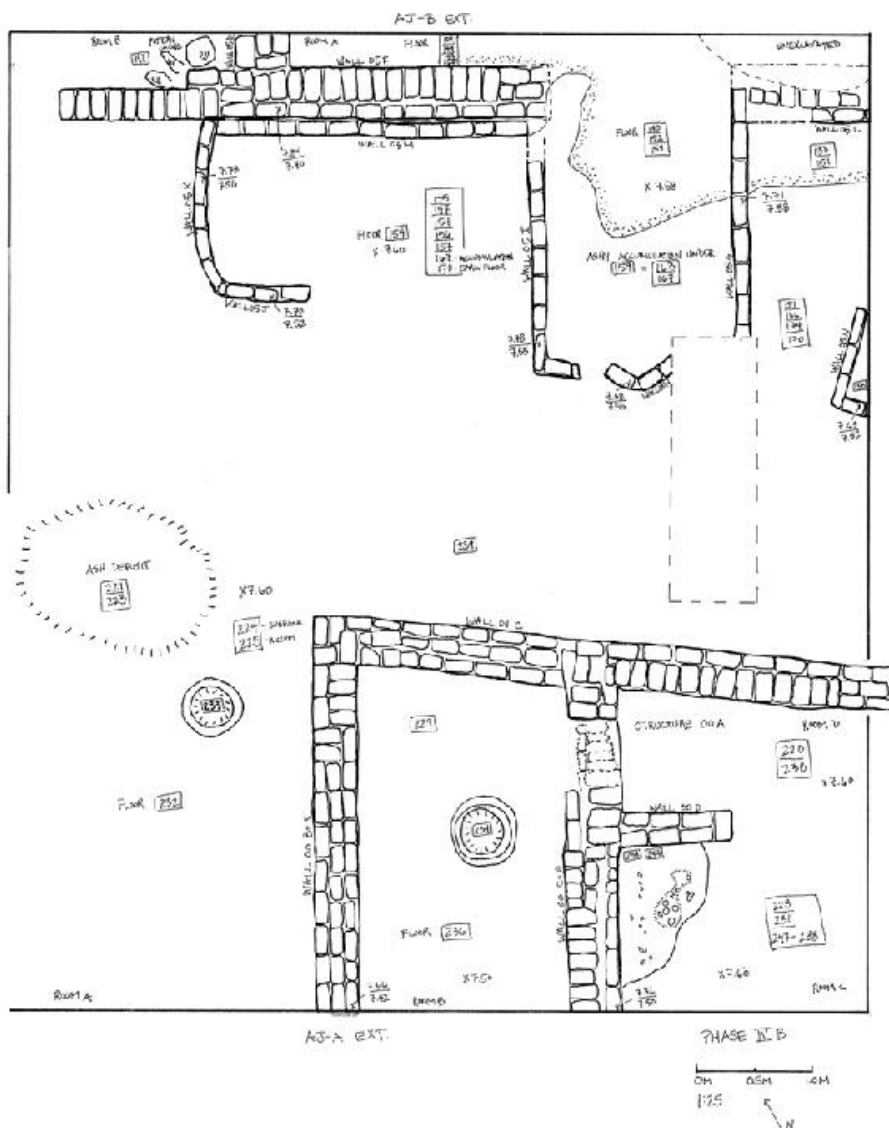


FIG. 37. Phase IVb plan.

An additional piece of evidence for activity within the Phase IV buildings comes in the form of a pottery cache (AJ-B ext./172) discovered in the very small portion of AJ-B ext./Structure 05A/Room B that was excavated at the end of the 2005 season (see Fig. 36). The cache consists of several complete beer jars (see Fig. 42). The evidence of the beer jar cache, hearths, and clay lined pits (including pit AJ-B ext./124, which contained a whole beer jar) taken together with the proximity to the temple (podium) would seem to suggest that the Field AJ North structures in Phase IV were part of a bread and beer production facility. Additionally, 20 meters to the south in Field AJ

South excavation has revealed a large contemporary baking facility that would have been part of the brewing and baking compound.⁵⁰ As we shall see below, the fact that Phase III continues the use of this area for bread and beer production also lends support to the same interpretation of the evidence in Phase IV.

Phase IV Ceramic Assemblage

Phase IV is characterized by the presence of a much wider variety of forms than the previous phases, a much reduced prevalence of bread moulds (relative to Phase VI and V), the introduction of a range of new complex rimmed and carinated bowls, and the popularity of red slip and polished decoration. Phase IV is also a significant transition period during which we see only remnant Early Dynastic forms and decoration, particularly diagonally and horizontally burnished bowls (of lesser quality than previous phases) and archaic-style bread moulds. At the same time an entirely new corpus of ceramics emerges. Old Kingdom “bell-shaped” moulds (Jacquet-Gordon’s type A1₅₁) replace the old standard Early Dynastic style moulds. These “bell-shaped” moulds create a conical loaf in contrast to the earlier much shallower and rounder loaf. Phase IV is the last phase in which Early Dynastic forms appear.

The change in ceramic assemblage from Phase V to Phase IV appears to occur much too suddenly if a period of abandonment after Phase Vb is not hypothesized. A more gradual introduction of Old Kingdom forms would be expected than is evidenced by the transition to Phase IV. Therefore, Phase V must have been abandoned for a period of time during which the beginnings of this transition occurred. By the time we pick up again with Phase IV, the transition from an Early Dynastic typology to an Old Kingdom typology is already underway.

In addition to the normally recovered pottery, two discoveries have added important information about this phase. First, AJ-B ext./ Structure 05A of Phase IVb yielded a cache of 10 flasks *in situ* piled into the corner of a room. Second, in the same building and phase, but in a different room, we discovered a unique two-handled pot which may have connections with 27th/26th century Anatolia and/or Syria.

Two data are instrumental in dating this level. First, the apparent phasing in of Old Kingdom forms and phasing out of Early Dynastic (Naqada IIID) forms indicate a date in the transition between the Early Dynastic to Old Kingdom. Ceramically, architecturally, and historically, this is the late 2nd Dynasty through the 3rd Dynasty, i.e. Naqada IIID–IV.⁵² Second, a comparison of the ceramics to other sites of late 2nd to 3rd Dynasty date shows strong parallels between the assemblages, particularly, the tomb of Khasekhemway at Abydos,⁵³

An Imported or Local Imitation Foreign Vessel

One vessel discovered in pieces on the floor of AJ-B ext./Structure 05A has proved to be particularly exciting (see Fig. 38). The large pot has a flat base, a hemispherical wall profile, and the rim has a slight exterior thickening. The vessel is fully slipped in a reddish-brown color and polished. Traces of soot within the vessel suggest that it was a cooking pot. The fabric is difficult to place and may be an MNS B2b, or even G. It is also possible that it is made from a foreign straw-tempered fabric. Most anomalous about this vessel is the presence of two loop handles near the rim which have been attached by puncturing the vessel wall. This technique was done poorly, and one of the handles has since broken off at the seam. The handles, after affixing, were then pushed upwards (before slipping), thereby eliminating the loop. The overall shape of the vessel and the slip and polish decoration is not necessarily alien to the Egyptian repertoire. The contours of the vessel seem slightly out of place, but it is the handles that are unparalleled in the Egyptian tradition. Handles do occur, but very rarely, and none parallel these examples. Foreign parallels have been difficult to find in scouring the literature from the Aegean to the Levant. Similar parallels for the handle and decoration, but not the form of the vessel, have been noted in Anatolia, at Goltepe in the Taurus mountain range in the EBII and at Tarsus in the EBII,⁵⁸ which would certainly fit our timeframe. At this point, however, parallels which incorporate all aspects of this vessel (i.e. handle, decoration, *and* form) are not apparent.

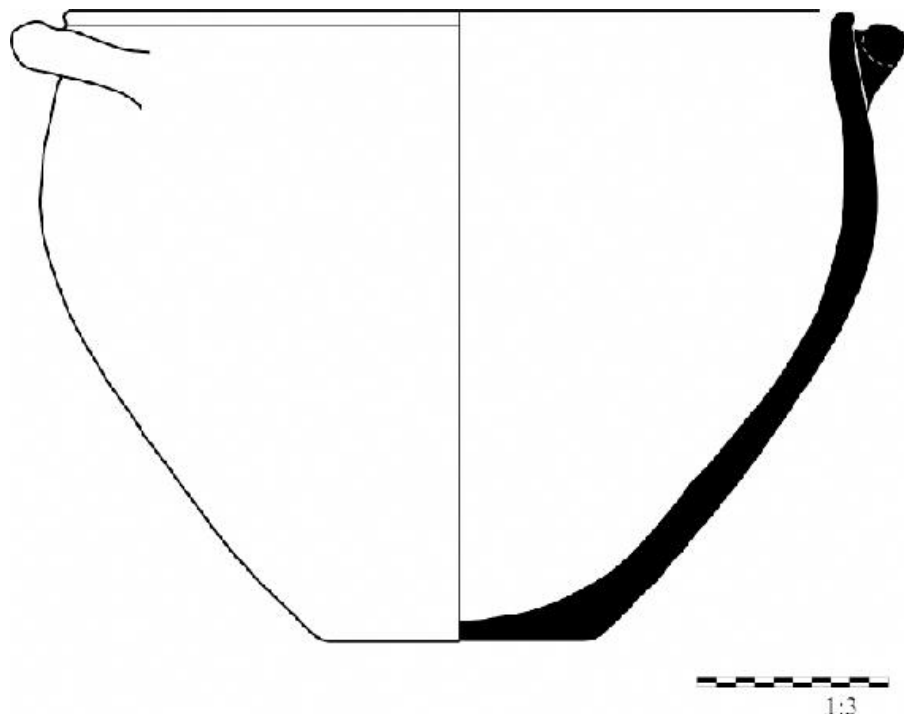


FIG. 38. Phase IVb imported or imitation foreign vessel.

Figure: Number	Identification	Type	Decoration	Fabric
Figure 38: 1	AJ-B ext. 164-170		Full red slip and polished	MNS B2b-G (?) Foreign (?)

TABLE 11. Phase IV Imported Vessel (?).

Phase IV Main Assemblage

Phase IV is significant in its transitional nature, bookended on one side with material culture of the Early Dynastic Period and on the other side (Phase III) by classic 4th Dynasty material culture. Both the ceramics and the architecture are suggestive of the transition between these two periods; it is a transition which is not often seen in the archaeological record. For this reason, a more descriptive (though still preliminary) discussion of the ceramics is presented.

Simple-lipped dishes continue into this phase in the Early Dynastic tradition of red slipping and interior pattern burnishing (Fig. 39: 20–25). However, these dishes have generally lost their fine quality. There is a much stronger emphasis on the coarser fabrics, such as MNS B2b and MNS C1 for these vessels. The most common dishes from this phase are defined by their round curved base profile created by scraping (often this scraping is covered by wet smoothing after cutting the base).⁵⁹ Examples from Mendes range in diameter from 20–30cm. Many of these examples carry on the tradition of being fully red

slipped and most of those have horizontal, vertical, or diagonal burnished patterns on the inside. As indicated above, however, there is a general tendency toward the coarser fabrics and a larger percentage of these forms are left undecorated or simply red slipped with no pattern burnishing.

A new version of Form 51 (seen previously in Phase V, Fig. 26:5) evolves a larger form that is common in this phase (Fig. 39: 17). They are defined by their simple rounded lip, straight sloping rim inflection and their flat disk base. Whereas the Early Dynastic form yielded examples ranging in diameter from 9–12cm, the new style is wholly larger with diameters in the 16–30cm range. In Phase IV, unlike the Early Dynastic examples, they can be either undecorated or dressed with a full red slip. The form occurs most frequently in MNS B2B fabrics. Parallels can be found Helwan in Group IIID2–3, the latter corresponding temporally to the early portion of Phase IV.⁶⁰

A number of new forms of dish forms appear in Phase IV. Form 46 is rare in this phase (Fig. 39: 16), but begins a tradition found in higher quantity in Phase III (therein known as Form 121). It has a simple rounded lip, outcurving rim inflection that follows up from a carination. No sherds in this phase are preserved below the carination, but in Phase III, Form 121, examples, the base is a somewhat roughly rounded base profile. The form is always red slipped on the interior, and occasionally on the exterior down to the carination. The slipping on the carination becomes standard in the Phase III examples. Form 41 (Fig. 39: 12–13) is also a new form that inaugurates an Old Kingdom tradition. These dishes have a flattened lip profile that appears to have been established by folding the edge of the rim inward and flattening, and a straight-sloping rim inflection that may have come off of a flat base (flat based examples come from Phase III; no bases have been preserved in Phase IV), rounded, or pointed base. This form continues throughout the rest of the sequence where it develops a substantial outcurving rim inflection. It occurs with or without a full red slip in a MNS B2a or B2b fabric. This dish is of particular significance, because its arrival announces the end of the 2nd Dynasty and the beginning of the 3rd at a number of sites. Notable parallels have been found in the tomb of Khasekhemway at Abydos,⁶¹ from early 3rd Dynasty tombs at Bet Khallaf,⁶² and it is indicative of Groups IIID3 and IV at Helwan.⁶³ The form of Fig. 39: 26 is also new to the corpus. A wide open V-shaped dish with a thickened angular everted rim, it has parallels from Giza,⁶⁴ Saqqara,⁶⁵ and Akhmim⁶⁶ of the 4th-6th Dynasty.

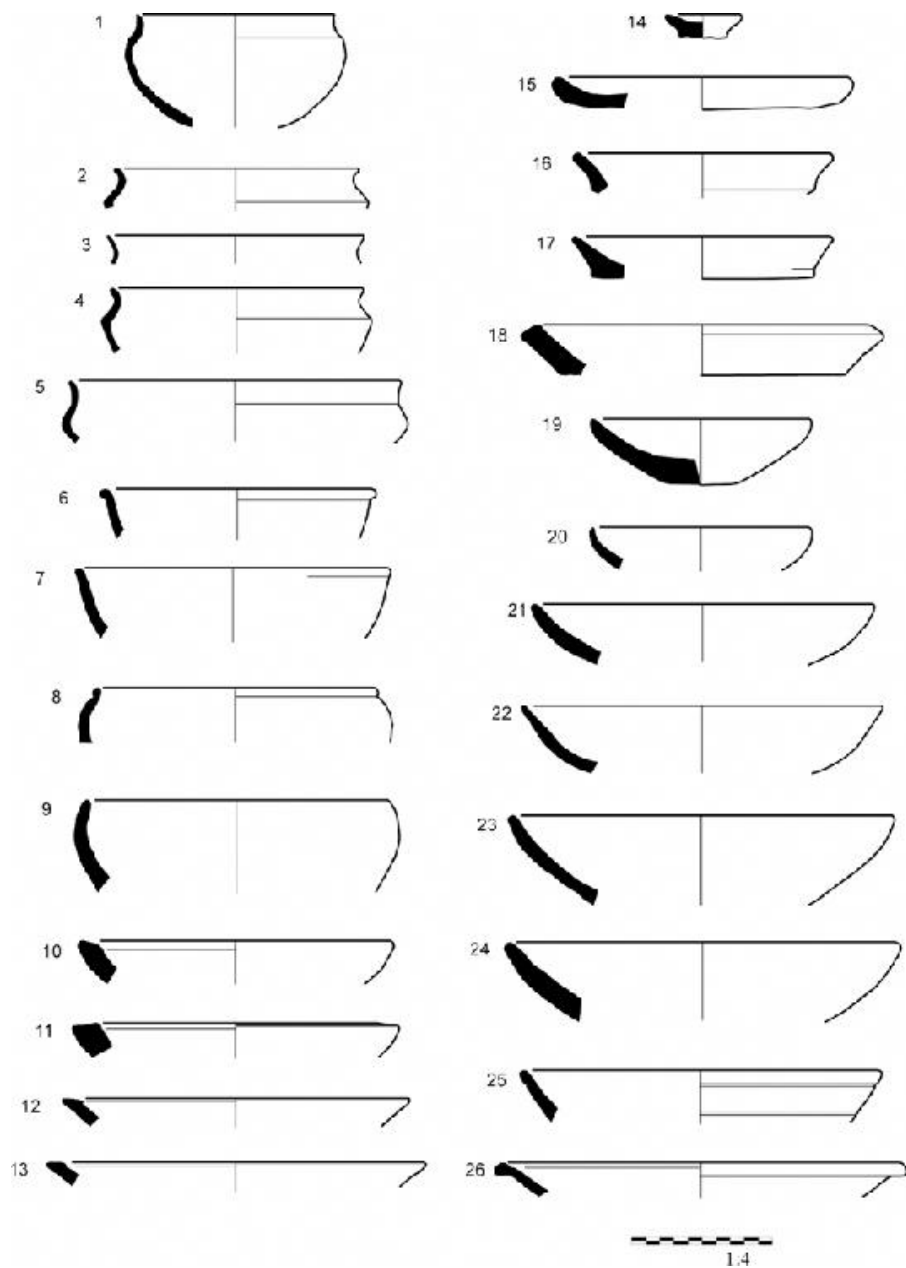


FIG. 39. Phase IV dishes and bowls.

Figure: Number	Identification	Type	Decoration	Fabric
Figure 39: 1	AJ-A ext./196a.03	010	Full red slip	MNS B1
Figure 39: 2	AJ-B ext./153f.04	010	Full red slip and polished	MNS B1
Figure 39: 3	AJ-B ext./153a.01	010	Full red slip and polished	MNS B1
Figure 39: 4	AJ-B ext./109b.10	010	Full red slip and polished	MNS A
Figure 39: 5	AJ-B ext./109b.11	010	Full red slip and polished	MNS B1
Figure 39: 6	AJ-B ext./156c.06	016	Full red slip with horizontal burnishing	MNS B2a
Figure 39: 7	AJ-B ext./167a.01	097	Exterior red slip with horizontal burnishing, interior red slip	MNS B2a
Figure 39: 8	AJ-A ext./217a.01	050	Exterior red slip with vertical burnishing, interior red slip with horizontal burnishing	MNS B1
Figure 39: 9	AJ-B ext./156b.14	052	Exterior whitish-brown slip	MNS B2b
Figure 39: 10	AJ-B ext./146a.01	107		MNS C1
Figure 39: 11	AJ-B ext./151a.06	122		MNS C1
Figure 39: 12	AJ-B ext./109b.08	041	Full red slip	MNS B2b
Figure 39: 13	AJ-B ext./156f.11	041	Full red slip	MNS B2b
Figure 39: 14	AJ-B ext./127c.07	051		MNS B2b
Figure 39: 15	AJ-B ext./147b.07	070		MNS C1
Figure 39: 16	AJ-B ext./156b.02	046		MNS B2b
Figure 39: 17	AJ-A ext./217a.02	051	Full red slip	MNS B2b
Figure 39: 18	AJ-B ext./116a.02	171	External red slip lip only, internal red slip	MNS C1
Figure 39: 19	AJ-B ext./156c.03			MNS B2a
Figure 39: 20	AJ-B ext./167a.09	052	Exterior pinkish wash with horizontal burnishing, interior thick white slip with horizontal burnishing	MNS B2b
Figure 39: 21	AJ-B ext./163a.04	049	Exterior red slip, interior red slip with vertical burnishing	MNS B2b
Figure 39: 22	AJ-B ext./156c.09	130	Exterior red slip, interior red slip with horizontal burnishing	MNS B1
Figure 39: 23	AJ-B ext./167a.02	049	Interior red slip with diagonal burnishing	MNS B2b
Figure 39: 24	AJ-A ext./218b.02	055	Interior red slip with horizontal burnishing	MNS B2b
Figure 39: 25	AJ-B ext./127c.03	049	Exterior red slip, internal red slip with diagonal burnishing	MNS B2b
Figure 39: 26	AJ-A ext./226a.01			MNS B2a

TABLE 12. Phase IV bowls and dishes.

A new tradition of bowls begins in this phase. Whereas the Early Dynastic red slip and pattern burnish dishes, such as Fig. 39: 26, continue on in a respectable quantity, they are a significantly reduced portion of the bowl corpus. Complex lips continue with Early Dynastic décor, as do Form 52 examples but almost no other bowl style continues into this phase. Instead the Old Kingdom red slip and polished style dominates with a range of new forms. Form 50, too, is a form conserved from the earlier levels (Fig. 39: 8). It maintains its incurving rim inflection that crosses the vertical plane and its external-thickened rim profile. This form appears often in MNS B2a fabric, but beginning in Phase III, it begins to make use of finer MNS B1 fabrics. This form continues to be among the finer of bowl forms in Phase III, but the arrival of new fine ware forms begins to overshadow its importance. Most examples from Phase IV are red slipped with pattern burnishing both inside and out.

Carinated bowls, Form 10, make their appearance in Phase VI, and now appear as a common bowl type and hallmark form though Phase I (Fig. 39: 1–5). Form 10 is defined by its outcurving rim inflection and carinated wall profile. This form is widely recognized by its

hypocoristic, “Meidum Bowl” coined by Petrie in his work at that site.⁶⁷ The diameters from Phase IV range from 13–24 centimeters, but some later examples are known to reach over 30cm. The Meidum bowl is a rounded based bowl with a “pronounced shoulder and recurved rim”.⁶⁸ It is usually made from a fine fabric in order to achieve a very hard (in the best examples, almost metallic) character. Examples from Phase IV occur primarily in MNS B1 fabric. One example (Fig. 39: 8) is one of the rare examples of MNS A at the site, and a few stratigraphically later examples are done in a Marl fabric and may or may not represent imports to the site. The surface decoration is invariably fully red slipped and polished. Variances in the form are mostly in the degree of carination and sharpness of the angles, and hue of slip (probably resulting either in firing temperature variances or source and mixture of mineral ochre powder).

Pot-sized vessels from Phase IV come in several forms, but they all share the characteristics of full red slipping and are usually polished. In contrast to earlier levels, there are a number of pot forms well manufactured with relatively fine fabrics. Phase IV introduces a form that becomes popular in Phase III, Form 104/163 (Fig. 40: 4). These vessels have a carinated wall profile and thickened-external lip. The lip thickening takes the form of one to three steps that begin about two centimeters before the end of the lip of the vessel. They are always fully red (or brownish-red) slipped and usually polished. They occur most often in MNS B2a. Examples are well known from the 4th and 5th Dynasties at Giza.⁶⁹ Form 172 (Fig. 40: 3) may be considered part of the same family as Form 104. This single example may be a hybrid for it shows the earlier style of decoration, external red slip with horizontal burnishing on top and interior red slip with horizontal burnishing on top and diagonal burnishing on bottom. Compare with Phase III’s Form 166.

Form 118 (Fig. 40: 5) is a flaring external-thickened rounded base pot, always undecorated and occurring in the MNS B2b fabric. Parallels are found in the late 3rd – early 4th Dynasty at Meidum.⁷⁰ Fairly common is Form 9 (Fig. 40: 6, 8). It is usually fully red slipped and often polished. The form is attested in a wide range of fabrics from MNS B1 (very rare), MNS B2a-b, and MNS C1. Diameters range from 20–42cm. The finest example (Fig. 40: 6) was made in the MNS B1 fabric and decorated with a full pinkish-white slip. The inside was horizontally burnished. The pinkish-white slip is attested on two other vessels of the same form and may have been an attempt to imitate the appearance of a marl fabric.

Vases from Phase IV are primarily represented by the Form 17 “Beer Jar” (Fig. 40: 1–2, 9–10). This form is hand and mould made and therefore morphologically diverse. Essential parts of the vessel are the

conical base, soft shoulder, and neck formed by the simple manipulation of the rim. Generally, they are all the same size (though no formal metrical study of these vessels has been done at Mendes, yet), and as such, probably represent specific volumes intended as rations.⁷¹

The tureens of Phase IV follow the Early Dynastic style, Form 23 (Fig. 40: 14–15), and like those of Phase VIII–V display a range of permutations on the collar of the vessel. Most of them have a characteristic full white wash and are manufactured invariably from a MNS C1 fabric. They all display a thickened external lip.⁷² Its walls are thick and strong, and the lip is evenly rounded and clearly distinguished from the body of the vessel. In some cases, the rim inflection is somewhat open (Fig. 40: 14) and in others the rim inflection is slightly incurving. Examples at Mendes range in diameter from 34–60cm. One very large sherd reveals that the base profile was probably curved round.

Two families of bread moulds are present in Phase IV, the Early Dynastic style (Fig. 41: 1–3) and the Old Kingdom style (Fig. 41: 4–9). Bread moulds in the Early Dynastic style of Phase IV (Fig. 41: 1–3) represent all the same forms as those of Phase VIII–V (see above). They all exhibit some basic features. The shape of loaf produced by all of these moulds is hemispherical, the exterior morphology of the mould and the size of the loaf vary, but the shape does not. They are all manufactured from the same fabric, MNS C1M1, which is nearly invariable from sherd to sherd, and they are all coated with a full grey wash. One example (not shown) has particularly strong parallels from the tomb of Khasekhemway at Abydos, demonstrating attestation in the late 2nd – early 3rd Dynasty.⁷³

Figure: Number	Identification		Decoration	Fabric
Figure 40: 1	AJ-B ext./151a.07	100		MNS C1
Figure 40: 2	AJ-B ext./140a.01	100		MNS B2b
Figure 40: 3	AJ-B ext./116a.03	172	External red slip with horizontal burnishing on top, interior red slip with horizontal burnishing on top and diagonal burnishing on bottom	MNS B2a
Figure 40: 4	AJ-B ext./129c.01	104	Full red slip	MNS B2a
Figure 40: 5	AJ-B ext./156b.03	118		MNS B2b
Figure 40: 6	AJ-A ext./217a.05	009	Exterior pinkish-white slip, interior pinkish-white slip with horizontal burnishing	MNS B1
Figure 40: 7	AJ-B ext./108d.01	176	Full red slip	MNS B2a
Figure 40: 8	AJ-B ext./126b.01	009		MNS B2a
Figure 40: 9	AJ-B ext./116 MP 05.56	017		MNS C
Figure 40: 10	AJ-B ext./121 MP 05.58	017		MNS B2b
Figure 40: 11	AJ-B ext./163a.02	099	Exterior red slip?	MNS B2a
Figure 40: 12	AJ-B ext./167a.03	021	Red slip with horizontal burnishing and 2 lines of brown paint?	MNS B2a
Figure 40: 13	AJ-A ext./229a.01	042	Exterior pinkish-white slip	MNS B2a
Figure 40: 14	AJ-B ext./145c.05	023	Full white wash	MNS C1
Figure 40: 15	AJ-B ext./108c.05	175	Full red slip	MNS C1

TABLE 13. Phase IV flasks, pots, and tureens.

Figure: Number	Identification	Type	Decoration	Fabric
Figure 41: 1	AJ-B ext/145e.06	053	Full grey wash	MNS C1M
Figure 41: 2	AJ-B ext/145b.03	127	Full grey wash	MNS C1M
Figure 41: 3	AJ-B ext/146b.01	065	Full grey wash	MNS C1M
Figure 41: 4	AJ-B ext/145d.02	037	Full grey wash	MNS C1M
Figure 41: 5	AJ-B ext/172b.04	145	Full grey wash	MNS C1M2
Figure 41: 6	AJ-B ext/109a.01	040	Full grey wash	MNS C1M2
Figure 41: 7	AJ-B ext/129a.01	146	Full grey wash	MNS C1M2
Figure 41: 8	AJ-B ext/127a.05	146	Full grey wash	MNS C1M2
Figure 41: 9	AJ-B ext/109a.02	053	Full grey wash	MNS C1M2
Figure 41: 10	AJ-B ext/128a.04	164	Full grey wash	MNS C1M2
Figure 41: 11	AJ-B ext/128a.01	164	Full grey wash	MNS C1M2
Figure 41: 12	AJ-B ext/126a.02	165	Full grey wash	MNS C1M2

TABLE 14. Phase IV bread moulds and platters.

Figure: Number	Identification	Type	Decoration	Fabric
Figure 42: 1	AJ-B ext/172.41 MNS 05-77	017		MNS C1
Figure 42: 2	AJ-B ext/172.47 MNS 05-76	017		MNS C1
Figure 42: 3	AJ-B ext/172.41A MNS 05-75	017		MNS G
Figure 42: 4	AJ-B ext/172.48 MNS 05-73		Warped in the kiln	MNS B2a
Figure 42: 5	AJ-B ext/172.41	017	Full white slip	MNS G
Figure 42: 6	AJ-B ext/172.43	017	Full white slip	MNS G

TABLE 15. Phase IVB pottery cache.

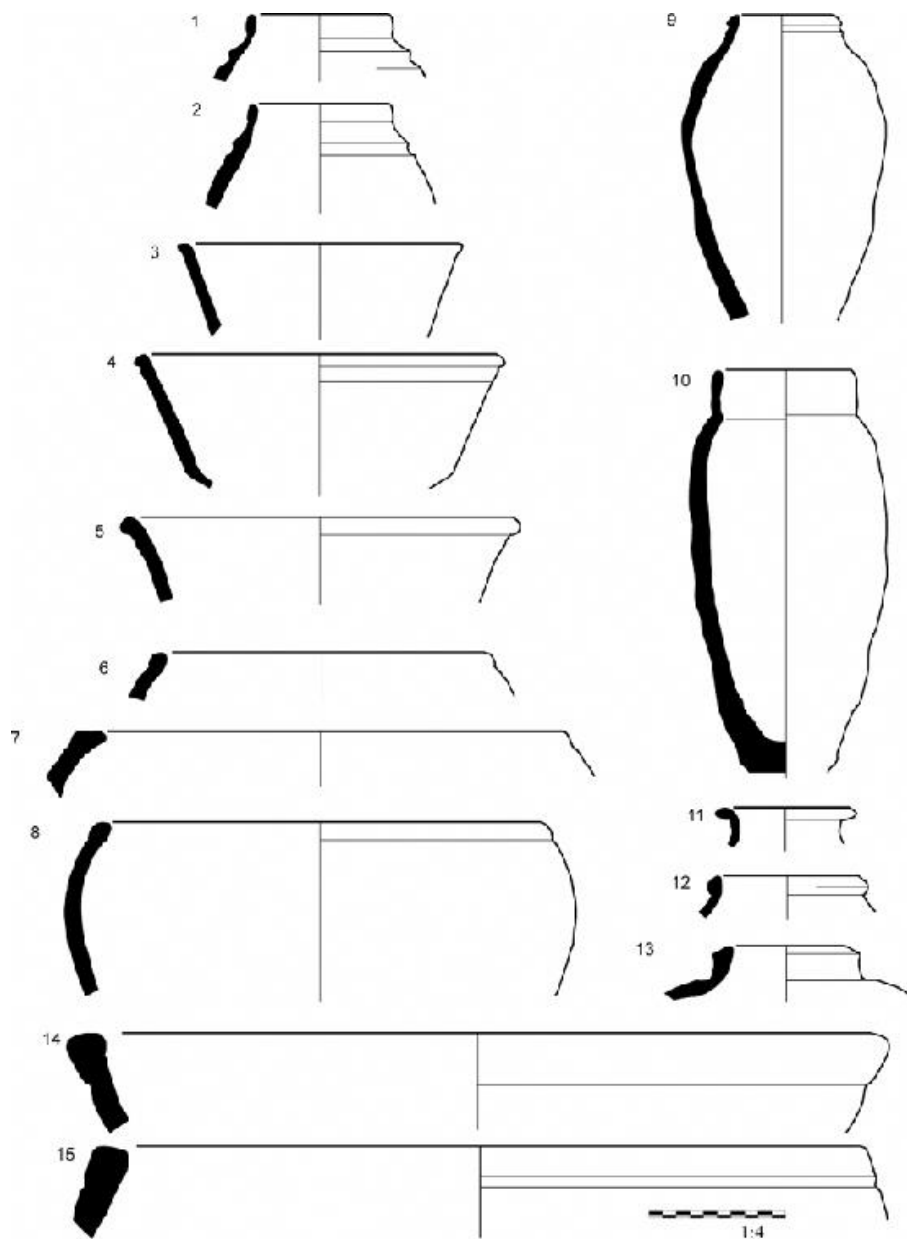


FIG. 40. Phase IV flasks, pots, and tureens.

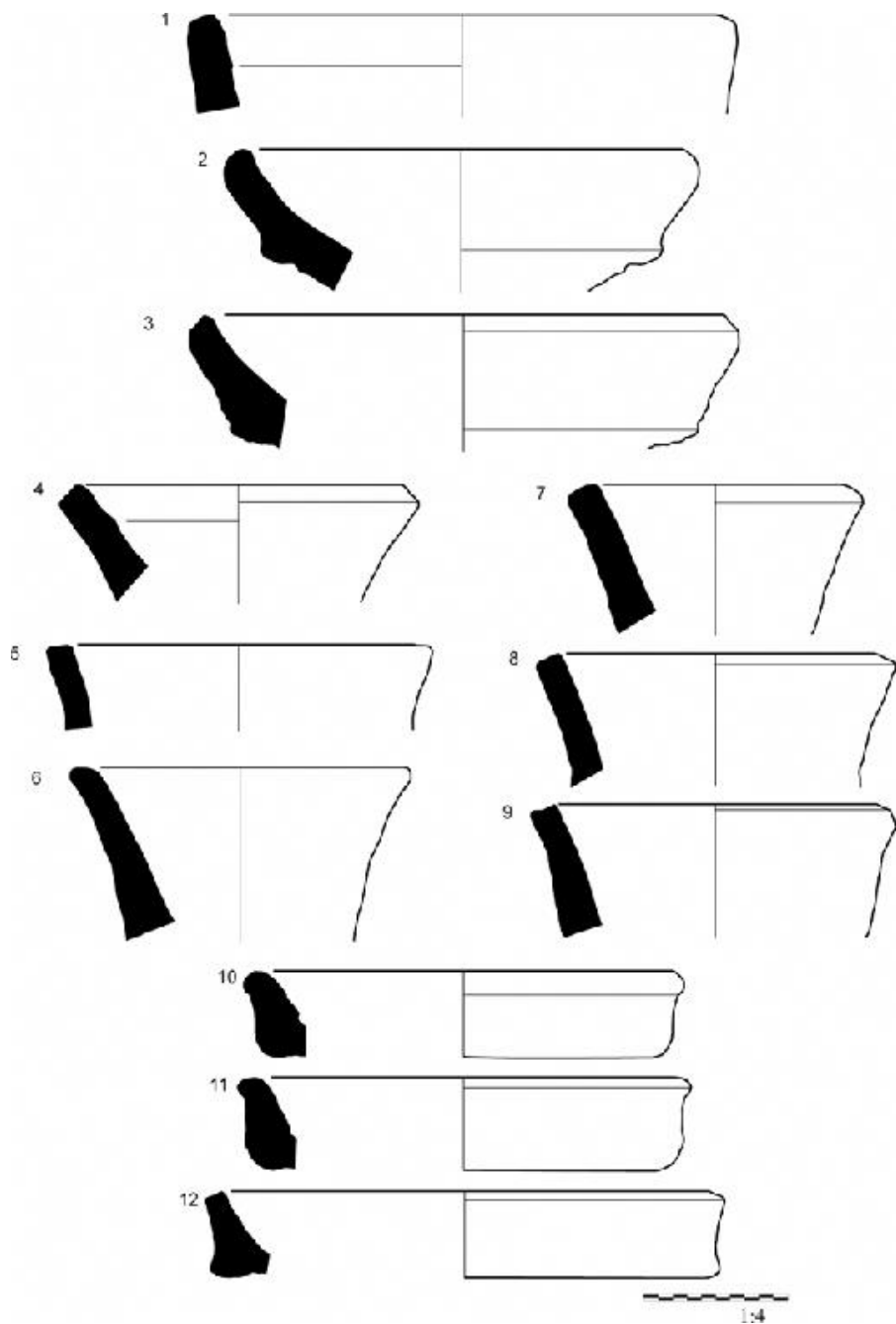


FIG. 41. Phase IV bread moulds and bread platters.

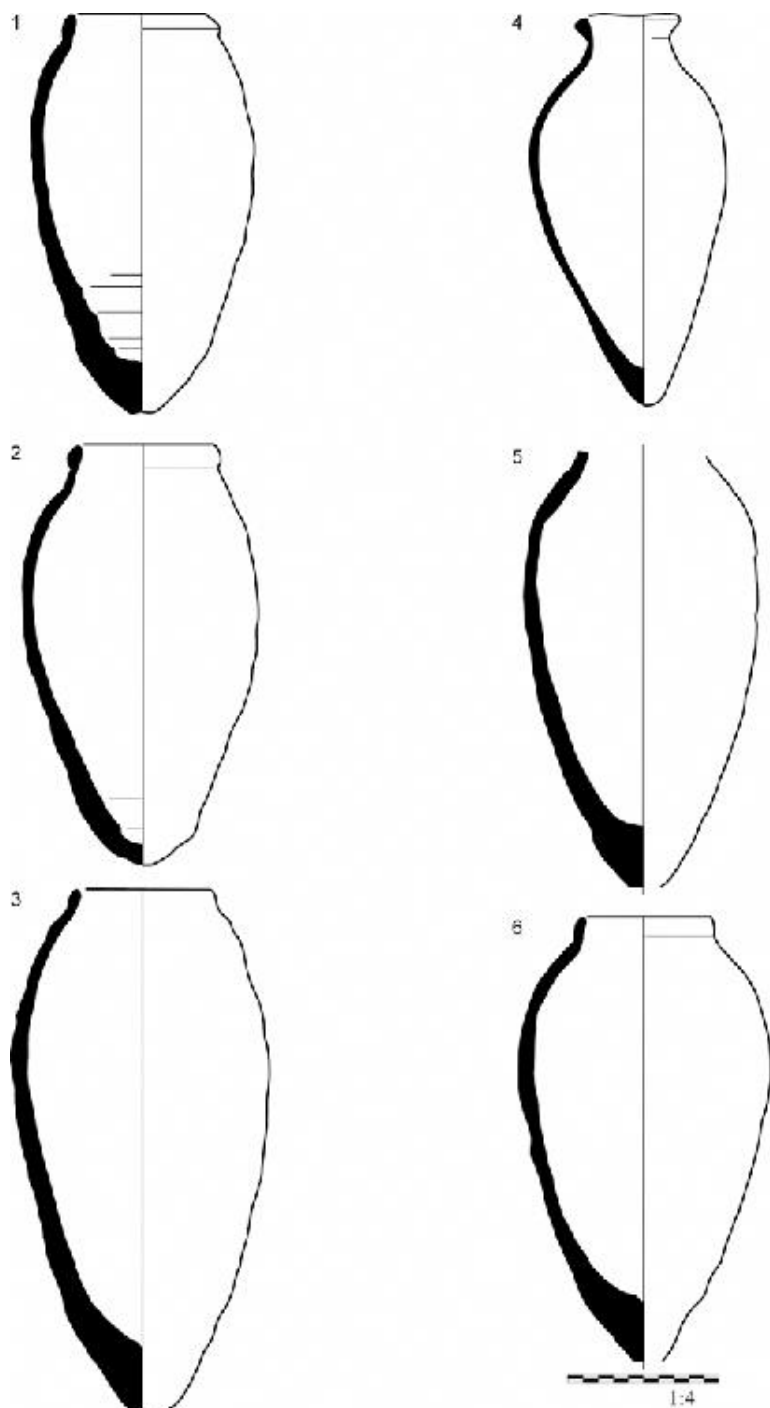


FIG. 42. Select jars from Phase IVb pottery cache.

With Phase IV we are introduced to the standard Old Kingdom style of bread mould (Fig. 41: 3–9), which coexists with the Early Dynastic

style in this phase. This standard type of mould was known to the Egyptians as the Bedja vessel.⁷⁴ While the rim morphology varies (reflecting the differences in the Mendes AJ Form categories), there are two basic styles of base. This distinction is reflected in Jacquet-Gordon's typology, in which the rough-bottomed mould is A1 and the flat-bottomed mould is A2.⁷⁵ As with the Early Dynastic style, these bread moulds display a remarkable homogeneity in their fabric, which does not vary between vessels. That fabric, which appears to be a development out of that used on the Early Dynastic moulds (MNS C1M1) is here called MNS C1M2. The moulds have the same smoothed interior and full grey wash. These moulds, however, create a conical loaf perhaps represented by the hieroglyph *di*, , as opposed to the earlier hemispherical loaf represented by the hieroglyph *t*, .⁷⁶ Parallels for the Old Kingdom style abound almost everywhere from the 3rd Dynasty through the 10th Dynasty.⁷⁷

A new type of form that is introduced in Phase IV is the bread platter used for making flat *pzn* bread, known to the Egyptians as the *prt*-platter.⁷⁸ These platters have a number of permutations, but only two are represented in Phase IV. They all have the mould-typical full grey wash and use the MNS C1M2 fabric. Both of these characteristics in addition to their parallels elsewhere, demonstrate that they were used for bread making.

POTTERY CACHE (PHASE IVB)

A pottery cache was found in AJ-B ext./Structure 05A/Room B at the end of the 2005 season (see above). All of the vessels in the cache have not been completely removed and only six vessels have been studied. Fig. 42: 4 is a fine small flask with a narrow neck and flaring rim made with a MNS B2a fabric. Parallels are known from the early-mid 4th Dynasty at Giza.⁷⁹ The other 5 vessels are vases of the Form 17 ("Beer Jars") (Fig. 42: 1–3, 5–6). These are relatively nicely formed examples of this hand and mould made form. Two occur in MNS C1, which is fairly typical of the form, and three occur in MNS G fabric, which is also fairly common. Two of the MNS G vessels also have a full white slip. White slip on form 17 is common, particularly in Naqada IIID examples at Mendes. Additionally, the pairing of MNS G with a full white slip is statistically significant. It is possible that there is an attempt to replicate the look and feel of a marl vessel as MNS G fabrics are typically quite hard for a Nile silt fabric.

Phase III

Phase III consists of two sub-phases⁸⁰ belonging to the 4th/5th through 6th Dynasties. Two buildings separated by an east-west-

running street constitute the major elements of Phase III (Fig. 48). Both the southern building and the northern building were constructed in Phase IIIb and from then on the inhabitants use the street to deposit their refuse, which, over the long life of the phase, built up considerably. Renovations to the southern structure during Phase III include two floor raisings before the structure is entirely rebuilt. Evidence presented below suggests that Phase III ended in an unnatural destruction phenomenon, after which a brief period of architectural abandonment occurred, Phase III/II (Fig. 46). During this phase, two burials were interred among the ruins of the structure. In the succeeding Phase IIb, some architectural features were shored up, though the subsequent occupation appears to have been significantly reduced and impoverished and more impermanent.

At the beginning of Phase IIIb, in AJ-B ext., a new building, AJ-B ext./Structure 04B, was constructed. Its southern wall, AJ-B ext./Wall 04G, runs parallel to the north baulk, in which most of the structure lies. Excavation in 2007 has revealed 1.5m more of this structure and that is reflected in the plan of Phase III Late (Fig. 48). AJ-B ext./Wall 04G was built in the same location as Phase IV's AJ-B ext./Wall 05F, suggesting that this new structure is a rebuilding in the same (or similar) plan. Phase IV's AJ-A ext./Structure 00A went out of use and a new building, AJ-A ext./Structure 99B, was constructed in its place. Phase IVa's AJ-A ext./Wall 01B was rebuilt as AJ-A ext./Wall 99S-Wall 99L, running parallel to AJ-B ext./Wall 04G. The arrangement of AJ-A ext./Walls 99S-99L and AJ-B ext./Wall 04G created a street between the two buildings, most of which runs through AJ-B ext. The original surface of the street was mud-packed (AJ-B ext./104), suggesting a degree of planning in the arrangement of the buildings. Throughout Phase III, this street accumulated almost one meter of wonderful garbage. The street disappears into the eastern baulk, but we are now certain that it ran only about 1 meter more to the east before it ran into the large mudbrick podium (Fig. 48 and Fig. 3).



FIG. 43. Phase III in AJ-A ext., AJ-A ext./Structure

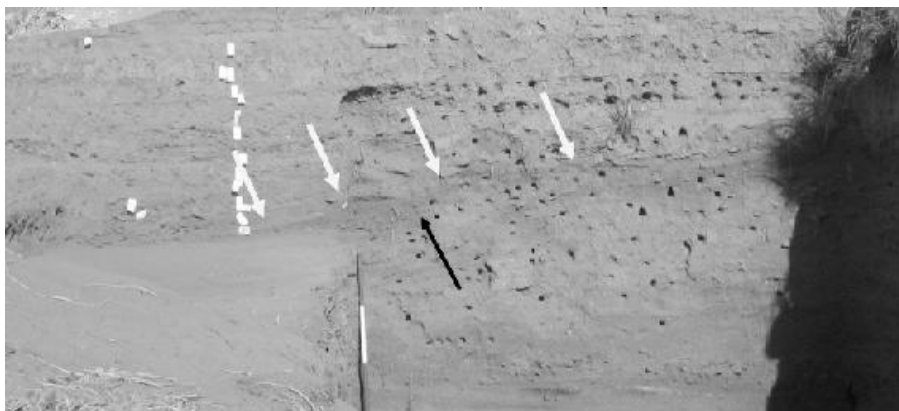


FIG. 44. East section of AJ-B ext. and AJ-A ext. Black arrow = Wall 99S; White = Ashy deposit as it covers all of AJA ext./Structure 99B; flat surface, left = AJ-B ext./100 surface upon which the ash rests.



FIG. 45. AJ-B ext./Structure 04B/Wall 04G showing cracks in bricks (white arrow).

From what is preserved in the square, AJ-B ext./Structure 04B follows the same general plan as the Phase IV AJ-B ext./Structure 05A. It consists of two rooms: Room A and Room B. Only a small portion of Room B is present within the boundaries of AJ-B ext. and has not been fully excavated. The original floor in Room A was a thin mud-packed floor at approximately the same ASL as the street. A large circular installation designated AJ-B Ext./Wall 04H occupies part of the interior of AJ-B ext./Structure 04B. As was suggested for Phase IV, Phase III appears to be part of a brewery. In the excavated portion, a circular silo was found in the south east corner of the room (see Fig. 46). No access was apparent in any of the walls, which were preserved over 1m high, so access must have been from the top. In the south western corner of the room, a large cache of beer jars was discovered (see Fig. 46). In future seasons, we plan to excavate to the north of AJ-B ext. in order to fully expose the brewery, and, indeed, to confirm its designation as such.



FIG. 46. AJ-B ext./Structure 04B, Phase III, after the 2007 seasons extension of AJ-B ext. 1.5m north. An intrusive Phase III/II burial cuts into the room, center.

AJ-A ext./Structure 99B is delimited by a new northern exterior wall, AJ-A ext./Wall 99S-99L (see Fig. 43). The configuration of the interior was designed to quarantine off a semi-circular room which may have been for the storage of grain. A fragment of a brick wall protruding south from AJ-A ext./Wall 99O may indicate a doorway between two additional rooms.

Outside in the street, a considerable amount of debris was deposited. The east sections of AJ-A ext. and AJ-B ext. reveal a very ashy deposit that arcs over top of AJ-A ext./Wall 99S, clearly deposited as part of the collapse of Phase IIIa. The arc continues north and rests on top of the Locus AJ-B ext./100 final street accumulation (see Fig. 44). That is, after the transition from Phase IIIb to IIIa within the street (AJ-B ext./100), the destruction ash arc associated with the collapse of AJ-A ext./Structure 99B was deposited.

Phase IIIa comes to an end with damage occurring in both buildings. In AJ-B ext./Structure 04B, AJ-B ext./Wall 04G shows cracks in bricks (see Fig. 45). This cracking occurs in a couple of courses of the wall at the intersection of AJ-B ext./Wall 04G and AJ-B ext./Wall 05B, a point of architectural stress. Within the building more than 1 meter of tumbled brick and ash filled the structure. Within the collapsed debris we found cache of more than 15 beer jars (see Fig. 46). Concurrently, levels in the street are characterized by the ash deposit on top of AJ-B ext./100 (described above; see Fig. 44). This building appears to have been destroyed in some manner which

caused the bricks and roofing material to collapse into the building, crushing the beer jars *in situ*.

It is very likely that the destruction of Phase III is to be equated with the massacre at the podium court. In 1999, the semi-circular courtyard appended to the northern face of the Old Kingdom temple platform (described above, Phase Vb and IV), was found to contain the massacred remains of some 18 individuals representing a cross-section of the local population.⁸¹ They had been murdered and their bodies discarded into the courtyard. Destroyed construction materials were dumped on the bodies and there is widespread evidence of conflagration. Pottery strongly supports a late Old Kingdom/early First Intermediate Period date for this destruction⁸² which is found all over the explored part of the site. By the 2001 season, excavations revealed as many as 35 bodies within the court.⁸³ This gruesome scene generally matches the destruction attested in the destroyed Phase III building in Field AJ-North only some 15 meters away. Excavation in 2007 added additional support for this conclusion.



FIG. 47. View from the east showing the 1.5m cut through the eastern baulk of AJ-B ext. The architecture seen through the cut is the Phase III brewery and the mudbrick ledge in the foreground is the mudbrick platform.

In the 2007 season, we attempted to correlate the stratigraphy of Field AJ-North with the mud brick platform by extending AJ-B ext. northwards 1.5m and by extending that addition to the east several meters to reach the platform. We were able to determine that the platform certainly existed contemporaneously with Phase IV and III.

We did not excavate deeply enough by the end of the season to determine if our hypothesis that it was built at the same time as Phase IV is correct, however. We were able to conclude that the podium did not continue in use in exactly the manner of its original design after the destruction of Phase III (see Fig. 47). The lowest level of the Phase II architecture was constructed at approximately 1 meter higher than the surface of the temple platform. Unfortunately, because of the damage accomplished by Amasis's work on the temple mound,⁸⁴ we have been unable to determine if any of the Phase II architecture was constructed *over* the platform. However, I think it highly likely that Phase III went out of use at the same time as the temple platform. It is because they went out of use in the context of a destruction layer, that the two destructions should be equated and dated to the late Old Kingdom. As we shall discuss below, the pottery from Phase III is classic Old Kingdom: 4th Dynasty through 6th Dynasty.

CERAMICS OF PHASE III

The pottery from Phase III is what could be called a typical Old Kingdom assemblage. The remnant Naqada IIID forms that we saw in Phase IV are now completely gone and the entire assemblage is characterized by red slipped and polished bowls, all of which are of a morphologically more complex design than the common simple-lipped vessels of earlier periods, coarse hand-made flasks ("Beer Jars"), and the new style of bread mould (first seen in Phase IV), that produces a conical loaf.

Dating of the pottery from this level is established, first, on the observed changes that take place throughout Phase IV, where a transition is clearly taking place between the Early Dynastic pottery styles and the Old Kingdom pottery styles. In that transition, some of the earlier forms persist, but by the time of Phase III, all of the earlier forms have been eliminated. Second, the new style fits perfectly into the general assemblage from the Old Kingdom at Giza.⁸⁵ Particularly, the latest material found within the structure matches very well with pottery from the 6th Dynasty at Giza.⁸⁶ Therefore, a date of 4th–6th Dynasty is proposed.

Carinated bowls, Form 10, having made their single appearance in Phase VI, began to appear regularly in Phase IV. They now appear as a common bowl type and hallmark form of Phases III through I, representing the most common form of the bowl from Phase III (Fig. 49: 2–5). Form 10 is defined by its outcurving rim inflection and carinated wall profile. This form is widely recognized by its hypocoristic, "Meidum Bowl" coined by Petrie in his work at that site.⁸⁷ The diameters from Phase III range from 13–30 centimeters. The Meidum bowl is a rounded based bowl with a "pronounced shoulder

and recurved rim".⁸⁸ It is usually made from a fine fabric in order to achieve a very hard (in the best examples, almost metallic) character. Examples from Phase III occur primarily in MNS B1 fabric. The surface decoration is invariably fully red slipped and polished. Variances in the form are mostly in the degree of carination and sharpness of the angles, and hue of slip (probably resulting either in firing temperature variances or source and mixture of mineral ochre powder). This form is ubiquitous in the 4th–6th Dynasties at most sites in Egypt.⁸⁹

Form 193 (Fig. 49: 6), a hemispherical bowl with a thickened internal lip is one of the several forms that are red slipped and polished, a popular decorative style for Phase III. Examples are usually in the relatively fine fabric, MNS B2a. A family of relatively simple red slipped and polished V-Shaped bowls also characterize Phase III. Form 212 (Fig. 49: 7) are a V-Shaped bowl has an inverted angular rim inflection ending in a simple rounded lip. Undecorated in examples from Mendes, it usually occurs in the MNS B2a fabric. Form 167 (Fig. 49: 10) are V-Shaped bowls with a externally thickened rim. It occurs with a full red slip and polished in the MNS B2a fabric. Form 207 (Fig. 49: 11–12) are V-Shaped bowls with a thickened internal rim profile. They occur as part of the full red slip and polished decoration style in MNS B2a and the fine MNS B1. A dish version of this form first appeared in Phase IV. This type is very common from the 4th–5th Dynasty at Giza.⁹⁰

Form 196 cups (Fig. 49: 8–9) make their appearance here in Phase III, but continue to be common into Phase II. These hemispherical cups with incurving rim and simple lip have bodies curved just enough to be considered part of the family of hole-mouth vessels. This fine form is normally fully red slipped and polished and occurs in fine MNS B1 and MNS B2a fabrics. They are well paralleled at the Giza pyramid town.⁹¹

Figure: Number	Identification	Type	Decoration	Fabric
Figure 49: 1	AJ-B ext./62f.01	199		MNS D2b
Figure 49: 2	AJ-B ext./63h.03	010	Full red slip	MM
Figure 49: 3	AJ-B ext./121b.03	010	Full red-brown slip and polished	MNS B1
Figure 49: 4	AJ-B ext./62e.02	010	Full red slip and polished	MNS B2a
Figure 49: 5	AJ-B ext./63e.08	010	Full red slip and polished	MNS B1
Figure 49: 6	AJ-B ext./102i.13	193	Full red slip and polished	MNS B2a
Figure 49: 7	AJ-B ext./66e.01	212		MNS D2a
Figure 49: 8	AJ-B ext./57d.01	196	Full red slip and polished	MNS B1
Figure 49: 9	AJ-B ext./115a.03	196	Full red slip and fully sooted	MNS B2a
Figure 49: 10	AJ-B ext./122b.05	167	Full red slip and polished	MNS D2a
Figure 49: 11	AJ-B ext./66a.02	207	Full red slip and polished	MNS B1
Figure 49: 12	AJ-B ext./63e.03	207	Full red slip and polished	MNS D2a
Figure 49: 13	AJ-B ext./104b.02	041		MNS B2a
Figure 49: 14	AJ-B ext./64a.04	041	Full red slip	MNS B2a
Figure 49: 15	AJ-B ext./122b.7	121	Exterior red slip, interior red slip on lip only	MNS B2b
Figure 49: 16	AJ-B ext./115b.03	043 (121)	Exterior red slip, interior red slip on lip only	MNS D2b
Figure 49: 17	AJ-B ext./67L.03	185	Full red slip	MNS C1
Figure 49: 18	AJ-B ext./104d.04	185	Interior red slip	MNS B2b

TABLE 16. Phase III dishes.

Form 163 (Fig. 50: 5–10) continues from but occurs in much greater quantity here than its limited appearance in Phase IV, and continues to be very common into Phase II. These vessels have carinated wall profile and thickened-external lip. The lip thickening takes the form of one to three steps that begin about two centimeters before the end of the lip of the vessel. They are always fully red slipped and usually polished. They occur most often in MNS B2a, occasionally in MNS B2b, and anomalously in MNS G. Examples are well known from the 4th to mid-5th Dynasties at Giza,⁹³ and to the 6th Dynasty at Saqqara where the carination has softened and virtually non-existent except for a vestigial line inside the vessel.⁹⁴

Form 166 is closely related to Form 163 discussed above (Fig. 50: 11–12), being a hemispherical pot with slightly everting rim on a carinated wall profile and thickened-external lip. Examples all show full red slip and a MNS B2a fabric. The few sherds of this type that we do have come only in the very earliest levels of Phase III. Examples are well known from the 4th to mid-5th Dynasties at Giza.⁹⁵

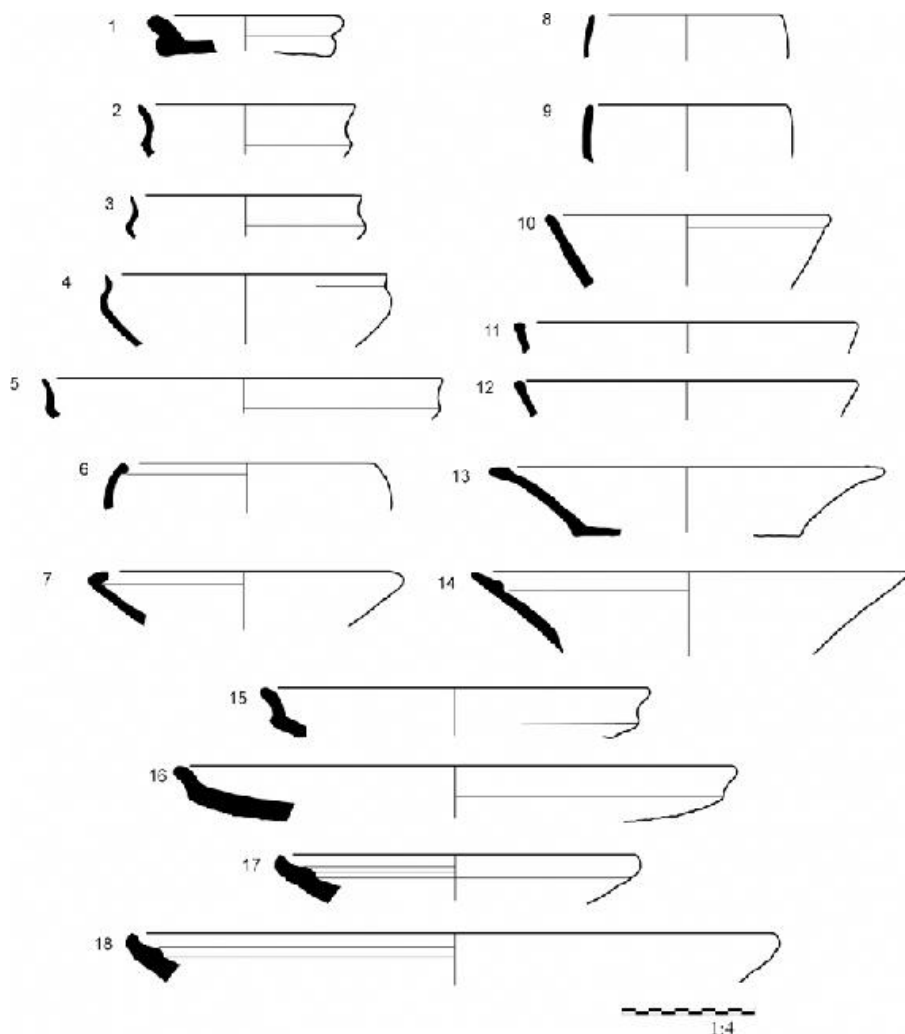


FIG. 49. Phase III dishes and bowls.

Form 9 (Fig. 50: 1–2) whole mouth vessels are fully red slipped and polished. The form is attested in a wide range of fabrics from MNS B1 (very rare), MNS B2a-b, and MNS C1. Diameters range from 20–42cm. An anomalous example in Phase IV, which was made in the MNS B1 fabric and decorated with a full pinkish-white slip is paralleled in Phase III in which the vessel has an exterior white slip and an interior red slip and polished (Fig. 50: 1; MNS B2a fabric). The inside was horizontally burnished. The pinkish-white slip is attested on two other vessels of the same form and may have been an attempt to imitate the appearance of a marl fabric.

Figure: Number	Identification	Type	Decoration	Fabric
Figure 50: 1	AJ-B ext./114d.01	009	Exterior white slip, interior red slip and polished	MNS B2a
Figure 50: 2	AJ-B ext./103a.05	009	Exterior brown slip on white slip, interior brown slip and polished	MNS B2a
Figure 50: 3	AJ-B ext./67c.01	173	Full red slip and polished	MNS G
Figure 50: 4	AJ-B ext./67i.02	211	Full brown slip and polished	MNS B2a
Figure 50: 5	AJ-B ext./67b.02	163	Full red slip and polished	MNS B2a
Figure 50: 6	AJ-B ext./114d.02	163	Full red slip and polished	MNS B2a
Figure 50: 7	AJ-B ext./58c.02	163	Full red slip and polished	MNS B2a
Figure 50: 8	AJ-B ext./58a.02	163	Full red slip and polished	MNS B2a
Figure 50: 9	AJ-B ext./63d.11	163	Full red slip and polished	MNS B2b
Figure 50: 10	AJ-B ext./63h.06	163	Full red slip and polished	MNS G
Figure 50: 11	AJ-B ext./121b.02	166	Full red slip	MNS B2a
Figure 50: 12	AJ-B ext./120b.01	166	Full red slip	MNS B2a

TABLE 17. Phase III pots.

Figure: Number	Identification	Type	Decoration	Fabric
Figure 51: 1	AJ-B ext./102q.02	017		MNS B2b
Figure 51: 2	AJ-B ext./104d.01	017		MNS C1
Figure 51: 3	AJ-B ext./66a.06	017		MNS B2b
Figure 51: 4	AJ-B ext./103b.08	017		MNS B2b
Figure 51: 5	AJ-B ext./102i.05	017		MNS B2b
Figure 51: 6	AJ-B ext./64d.05	017		MNS G
Figure 51: 7	AJ-B ext./121b.01	017		MNS B2b
Figure 51: 8	AJ-B ext./102a.03	017		MNS C1
Figure 51: 9	AJ-B ext./103b.09	017		MNS B2b
Figure 51: 10	AJ-B ext./63h.09	017	Exterior white wash	MNS G
Figure 51: 11	AJ-B ext./57d.05	017		MNS G
Figure 51: 12	AJ-B ext./102q.03	017		MNS B2b
Figure 51: 13	AJ-B ext./102i.03	017		MNS B2b
Figure 51: 14	AJ-B ext./102b.02	017		MNS B2b
Figure 51: 15	AJ-B ext./115 MMP 05 54	017		MNS G
Figure 51: 16	AJ-B ext./103c.09	017		MNS B2b
Figure 51: 17	AJ-B ext./102b.06	017	Exterior white wash	MNS B2b
Figure 51: 18				
Figure 51: 19				
Figure 51: 20	AJ-B ext./120a.02	017		MNS B2b
Figure 51: 21	AJ-B ext./67c.03	017	Exterior white wash	MNS B2b
Figure 51: 22	AJ-A ext./172b.06	042		MNS B1
Figure 51: 25	AJ-B/67i.03			MNS B2a

TABLE 18. Phase III vases and flasks.

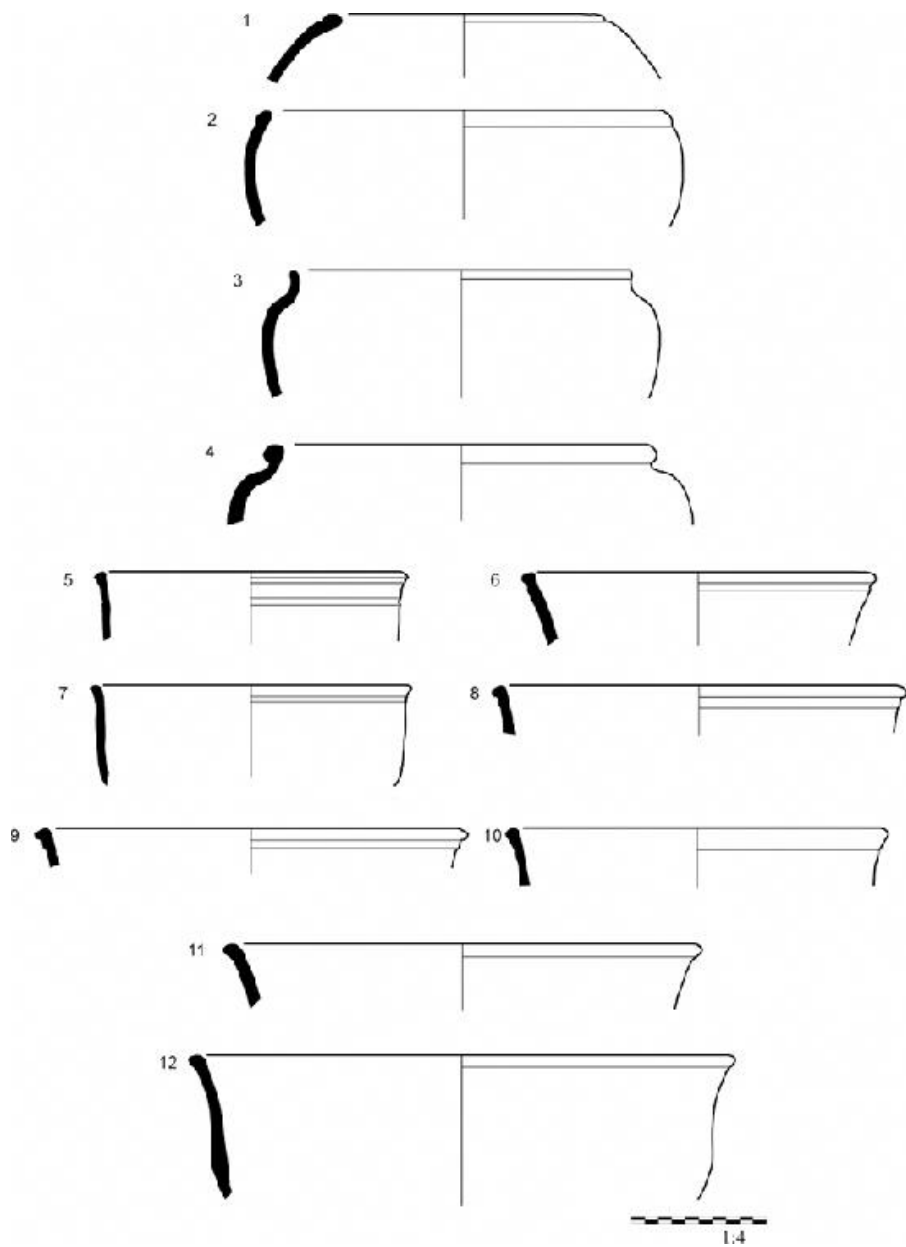


FIG. 50. Phase III pots.

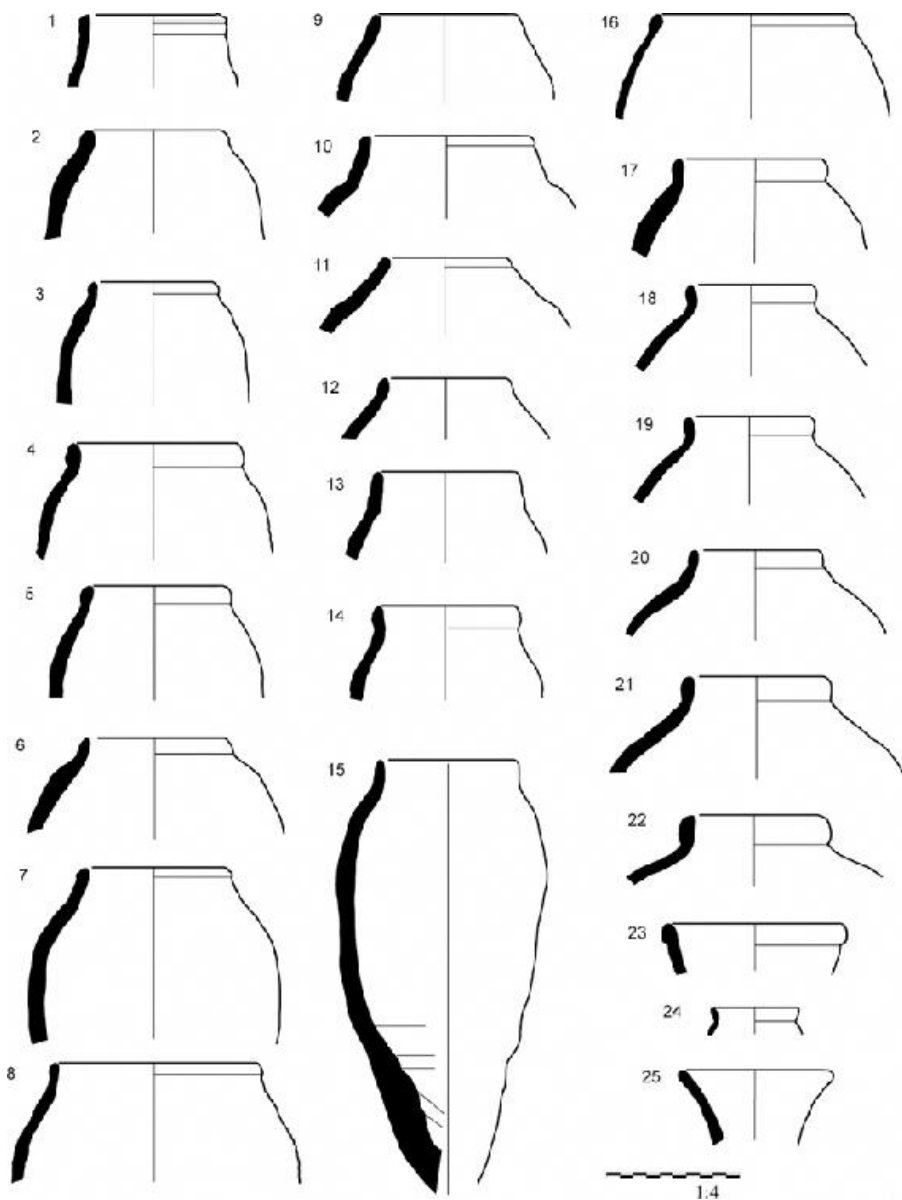


FIG. 51. Phase III vases and flasks.

Form 173 (Fig. 50: 3) shouldered pot is a fully red slipped and polished form occurring throughout Phase III. It is found in MNS B2a-b and occasionally, the MNS G fabric. Form 211 (Fig. 50: 4) is a shouldered pot with an external thickened rim. It occurs with a full brown slip and polish as well as a simple red wash. The fabric is generally MNS B2a.

Vases from Phase III belong to a family known traditionally as “Beer Jars.” These vessels collected under the Form 17 are hand-made vases

with a soft shoulder and ill-formed neck (Fig. 51: 1–21). They are usually undecorated and made from a coarse Nile silt fabric, such as MNS B2b, C1, or G. They continue with little change from Phase IV. Generally speaking they are all the same size, and as such, probably represent specific volumes intended as rations.⁹⁶ These and bread moulds are the most commonly occurring form in Phase III and II.

The Early Dynastic tureen (Form 23) disappears through Phase IV and in Phase III a new style replaces it. Form 187 (Fig. 52: 2) is a large hemispherical tureen whose rim is ribbed and lip flat. It is almost always fully red slipped and polished and models an assortment of Nile silt fabrics, MNS B2a–b and MNS C1. They are, perhaps, paralleled at Giza in the 4th–5th Dynasty.⁹⁷

The deep beer vats of the Old Kingdom also belong to this category (Fig. 52: 1). Several examples are known from this phase, but the most complete was discovered in Phase IIIb, where it had been reused in the floor raising of AJ-B ext./Structure 04B to accommodate the burial of an infant. These large spouted vats with incurving external-thickened rim and flat base are quite common in the 4th–5th Dynasty and considered a characteristic of the period.⁹⁸ They occur fully red slipped and polished in the MNS B2b fabric.

Along with “Beer Jars” (Form 17, flasks), bread moulds are the most common form in Phase III (Fig. 53: 3). We were introduced to this mould family in Phase IV.

The bread platters introduced in Phase IV continue into Phase III. They are used for making flat *pzn*-bread, known to the Egyptians as the *prt*-platter.⁹⁹ These platters have a number of permutations, but only two are represented in Phase IV. They all have the mould-typical full grey wash and use the MNS C1M2 fabric. Both of these characteristics in addition to their parallels elsewhere, demonstrate that they were used for bread making. There are three basic groups of platters in Phase III, the most common being the group represented by Figure 53: 5–9:, which includes the continuation of Form 165 from Phase IV. It has parallels from the 4th through 5th Dynasties at Giza and Saqqara.¹⁰⁰

Figure: Number	Identification	Type	Decoration	Fabric
Figure 52: 1	AJ-B ext./121 MMP 05 78		Full red slip and polished	
Figure 52: 2	AJ-B ext./62b.01	187	Full red slip on white slip	MNS B2a
Figure 52: 3	AJ-B ext./62h.02	202	Full brown slip on white slip	MNS C1

TABLE 19. Phase III tureens.

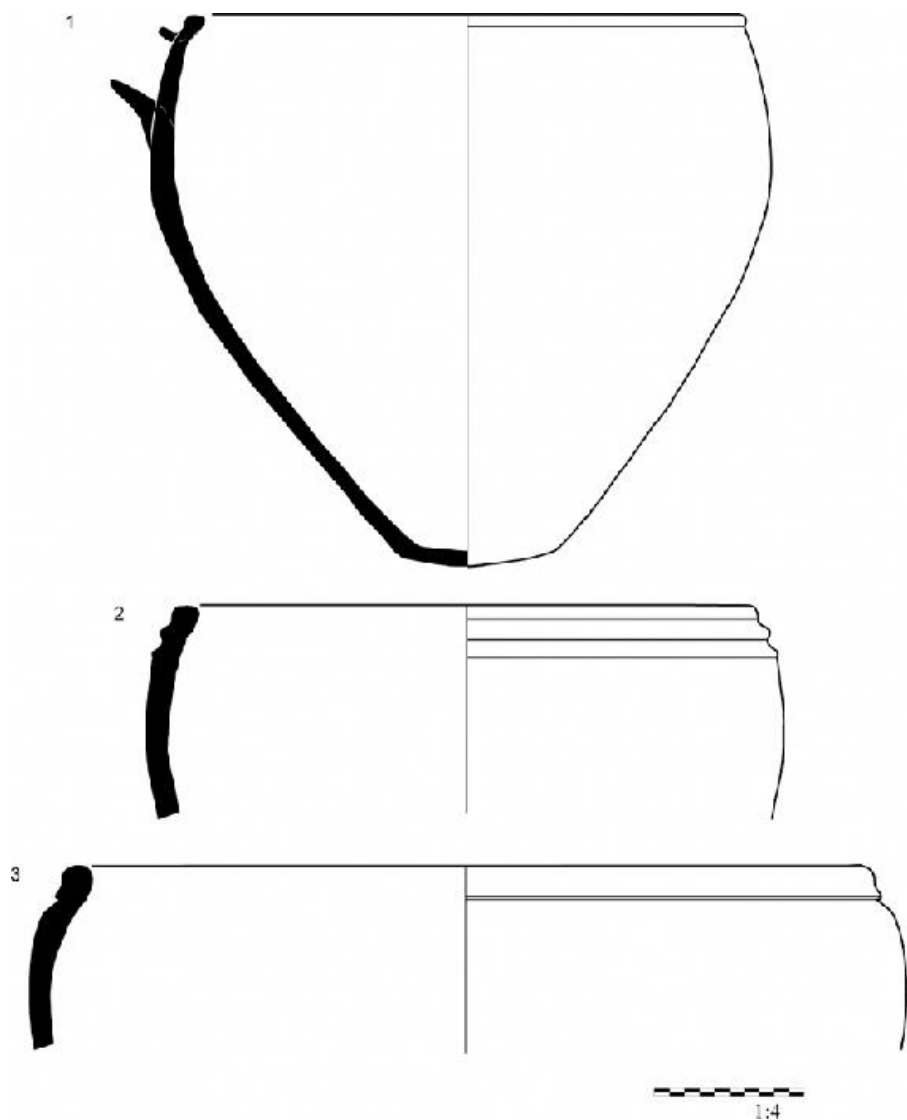


FIG. 52. Phase III tureens.

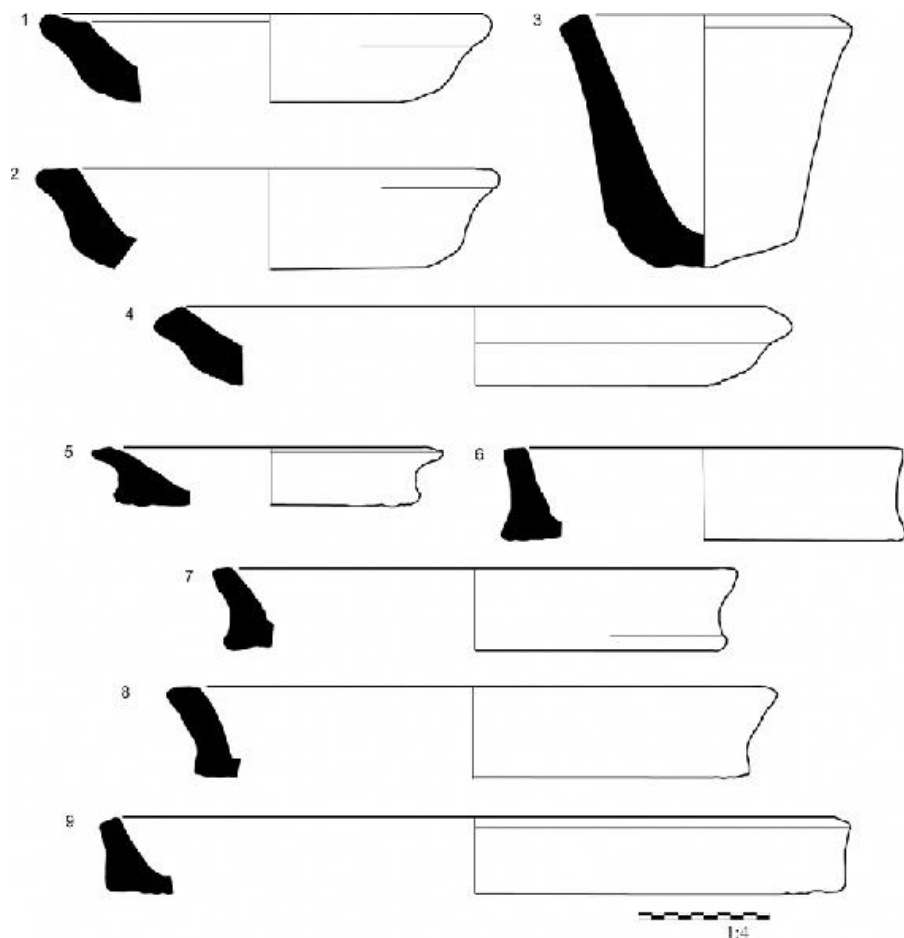


FIG. 53. Phase III bread moulds and platters.

Figure: Number	Identification	Type	Decoration	Fabric
Figure 53: 3	AJ-B ext./114 MMP 05 60	116	Full grey wash	MNS C1M2
Figure 53: 1	AJ-B ext./64e.09	201	Full grey wash	MNS C1M2
Figure 53: 2	AJ-B ext./65e.02	204	Full grey wash	MNS C1M2
Figure 53: 4	AJ-B ext./57a.01	204		MNS C1M2
Figure 53: 5	AJ-B ext./114c.01	182	Full white wash	MNS C1
Figure 53: 6	AJ-B ext./63e.11	109	Full grey wash	MNS C1M2
Figure 53: 7	AJ-B ext./122c.01	165	Full grey wash	MNS C1
Figure 53: 8	AJ-B ext./61a.02	179	Full grey wash	MNS C1M2
Figure 53: 9	AJ-B ext./122a.01	165	Full grey wash	MNS C1M2

TABLE 20. Phase III bread moulds and platters.

Phase II

For an indeterminable length of time after the destruction of Phase III, this portion of the site remained architecturally abandoned. Two burials were found cut into the Phase III ruins and sealed by Phase II architecture (Fig. 46). They were simple interments of individuals

wrapped in reed matting and placed unequipped into pits dug within the Phase III ruins. This interceding phase has been designated Phase III/II.

Phase II is divided into three sub-phases. Both AJ-A ext. and AJ-B ext. see the revival of architectural activity, but in AJ-B ext., that new architecture makes use of earlier elements. The old Phase III plan of two buildings separated by a street is completely abandoned and both units contain parts of what seems to be one new large building or, possibly, outdoor architecture upon a terrace. The plan is not coherent and difficult to understand at a macro level. One circular structure in AJ-A ext. is easily recognizable, though the relationship of the other walls to one another remains indeterminate (Fig. 59). Phase IIb ends with a destruction that leaves the circular building filled with whole vessels, animal bones, and flint tools (Fig. 56). The only indication of activity in Phase IIa is a brick wall that can only be seen in the east section of AJ-A ext., and there is not any special reason that it should be seen as the last phase of II rather than early activity in Phase I. The following phase, Phase IIb witnesses the construction of a large north-south wall (which forms the eastern baulk of both AJ-A ext. and AJ-B ext.) and a mud paved terrace created on this side of the temple mound and completely seals the Phase II architecture (Fig. 60).



FIG. 54. AJ-A ext. showing Phase IIc and IIb architecture.

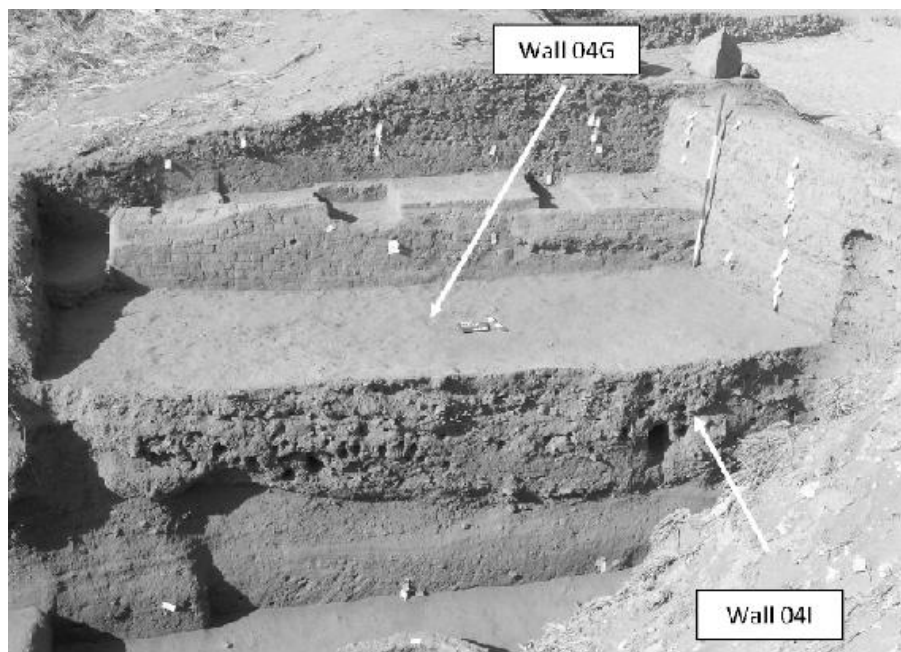


FIG. 55. AJ-B ext./Wall 04B. The repair of the wall with the addition of Wall 04I can be seen at right.



FIG. 56. AJ-A ext. destruction of Phase IIb.

After the destruction of Phase IIIa, when the Phase IIc builders came to this area, they would have seen a heap of brick debris and ash covering AJ-A ext./Structure 99b sloping from the south side of AJ-A ext. down to the north and meeting AJ-B ext./Wall 04G. The slope would have followed the contour of the ash lines indicated in Figure 44. AJ-B ext./Wall 04G would still have been standing but would have

been broken and deteriorated in many places (see the cracks in the bricks in Figure 45). They conducted repair work on AJ-B ext./Wall 04G. At the level of the brick course continuing the cracking in AJ-B ext./Wall 04G, a relatively “messy” course of bricks, half-bricks, and mud mortar were laid as a repair job. Courses below this repair are in much better condition, as are courses above, indicating that after the bricks of AJ-B ext./Wall 04G cracked, unsalvageable courses were removed, the exposed top of the old wall was patched, and new courses were laid above the level of the repair. Additionally at this time, a new wall, AJ-B ext./Wall 04I, is appended to the southeast side of AJ-B ext./Wall 04G, directly on top of a fill aimed at making level the arcing detritus within the former street, presumably as a buttress or to straighten the damaged wall (see Fig. 55).



FIG. 57. AJ-B ext. destruction debris (Phase IIB). The seal impression of Neferirkare was found among the debris.

Unlike AJ-B ext., much more substantial architecture was built in AJ-A ext. during Phase IIc. There, a circular wall, AJ-A ext./Wall 99I, and its two radial arms were built. To the west, on what must have already been the western slope of the temple mound, a north-south wall, AJ-A ext./Wall 99E extended the entire width of the unit and another set of walls attached to it in a casemate-fashion, AJ-A ext./Wall 99C and AJ-A ext./Wall 99D (Fig. 59). Based on the plan, it is possible that this “casemate” formed a walling structure on the edge of the temple mound (see Fig. 54 and Fig. 59). The ‘passageway’ between AJ-B ext./Wall 04K and AJ-B ext./Wall 04B may have been its gate. It should be emphasized that only a thin layer of AJ-B ext./

Wall 04K was detected. I had little confidence affirming its wall designation, until planning it with its contemporary architecture from Phase IIc betrayed its perfect alignment with Wall 04B. Phase IIb ends with unclassifiable destruction. In AJ-A ext., within the semi-circular AJ-A ext./Wall 99I, whole vessels, primarily “beer jars” and beakers, ash, and animal bone were discovered (see Fig. 56 and Fig. 57). Similar deposits were discovered outside of the circular wall in AJ-A ext. and in AJ-B ext. (see Fig. 57). Because of continued processing of finds from this phase (and the recent restratification of key loci), ceramics will not be presented for Phase II in detail at this time. Phase II ceramic assemblage is not too dissimilar from Phase III, but it does contain a few new bowls and beaker forms that generally mark a slightly later phase of ceramic development. In particular is the appearance in Phase II of hand moulded direct rim beakers that become indicative of First Intermediate Period pottery nearer to the Herakleopolitan period.¹⁰¹ At the same time, the FIP/MK thin and long style of bread mould (Jacquet-Gordon, Type C) does *not* occur in Phase II.¹⁰² A date in the late Old Kingdom following Pepi II, the 8th Dynasty is suggested.



FIG. 58. Seal impression bearing the royal name, [Nefer]-ir-ka[-re].

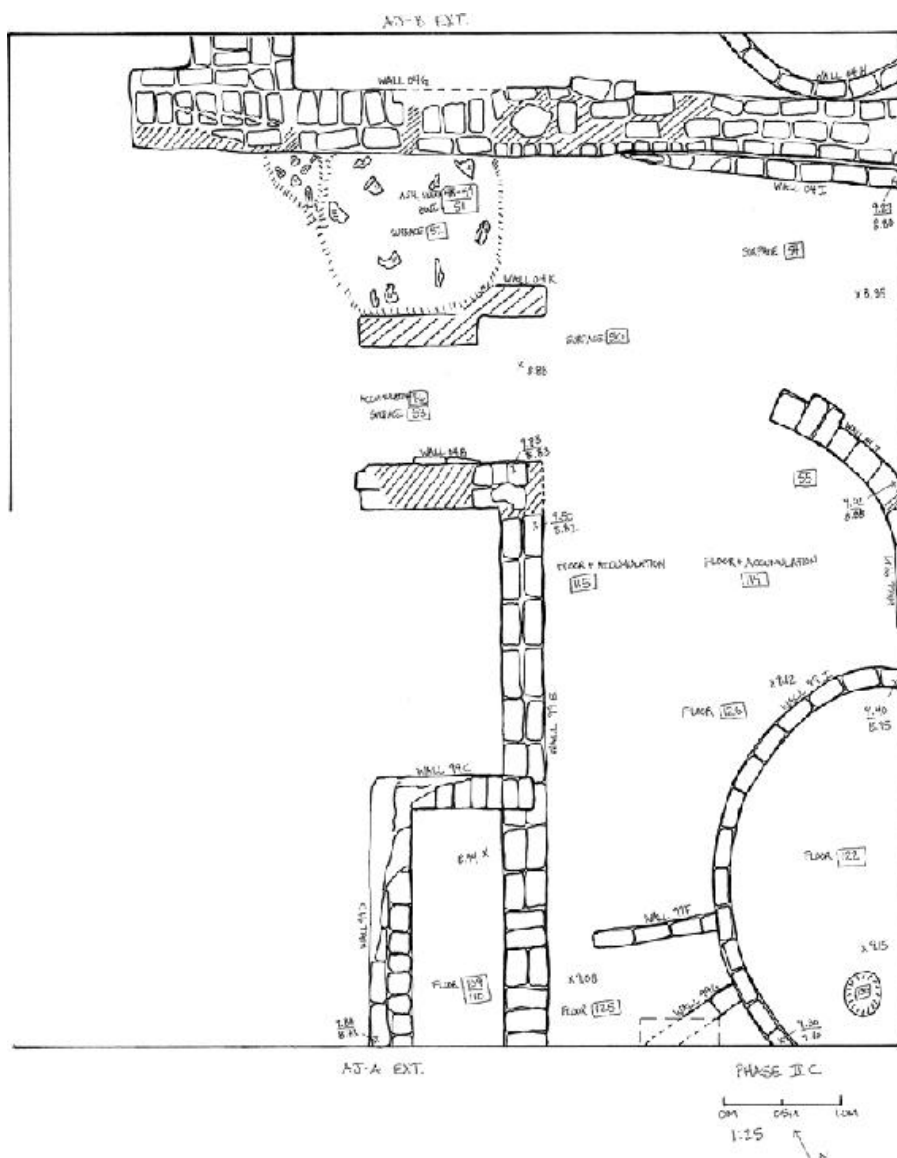


FIG. 59. Phase II plan.

One of the most significant artifacts from Phase IIb is a small seal impression recovered from the destruction debris in AJ-B ext. The impression bears the unmistakable cartouche of Neferirkare ([Nefer]-ir-ka[-re]; Fig. 58 and Fig. 57). Though fragmentary, the remaining impression is clear and unworn. The good condition of the seal is telling. We would expect a good deal of wear on a seal impression made in sun-dried mud which shifted and degraded in the harsh conditions of fill layers over an extended period of time. The high quality of the impression supports the assumption that the artifact was

deposited in the destruction debris close to the time of the terminus of the phase. There are two potential attributions for this impression.

The first possibility is the well-known 5th Dynasty king, Neferirkare. If this is the name preserved for us in the impression, we may assume that its deposition in Phase IIb ranges from his reign to the cessation of his mortuary cult near the end of the 6th Dynasty.¹⁰³ This would require us to date the destruction of Phase III, the massacre at the podium, and the destruction of the temple within this time frame, as well.

A second possibility is one Neferirkare of the 8th Dynasty as yet attested only in the Abydos “king-list” (#56). Hayes has argued convincingly that this Neferirkare should be equated with the Horus Demedj-ib-tawy known from the Coptos decree (*r*)¹⁰⁴ and identified as the last king of the Memphite line (8th Dynasty). In addition to being the first attestation of this royal name outside of the Abydos list, an attribution of the seal impression to this Neferirkare has the advantage of fitting the chronological sequence suggested by both pottery and stratigraphy (see below).

PHASE I

Phase I is divided into two sub-phases: Ia and Ib. Following the destruction of Phase II, the area was filled in to create a terrace on the edge of the western edge of the mound bounded on its east by a large north-south oriented wall (AJ-B ext./Wall04A = AJ-A ext./Wall 99B) that is parallel to the New Kingdom temple axis (Fig. 60). This wall formed the original eastern baulk of both AJ-A ext. and AJ-B ext. The wall extends to the north for at least 10 meters. The wall also extends to the south, where it was encountered in Field AJ South and continued to approximately two meters north of the south-west corner of the later naos court.¹⁰⁵ At that point, the wall turned a corner to the east, and traverses only a short distance before it is cut by the foundations for Amasis’s naos court. The later New Kingdom construction on the mound has cut so much away that it has been difficult to understand this wall in relation to the mudbrick platform. As suggested above, the mudbrick platform went out of use with the destruction of Phase III. The Phase II architecture rests about one meter higher than the surface of the platform and the base of the Phase Ib wall higher still. The size and vector of the wall and the location of the corner to the south suggest that it may have been a temenos-type wall surrounding the then current incarnation of the temple. If it is indeed a temenos wall, it would seem to suggest that after the destruction of the platform the temple was rebuilt, perhaps in Phase II or perhaps as late as Phase Ib.

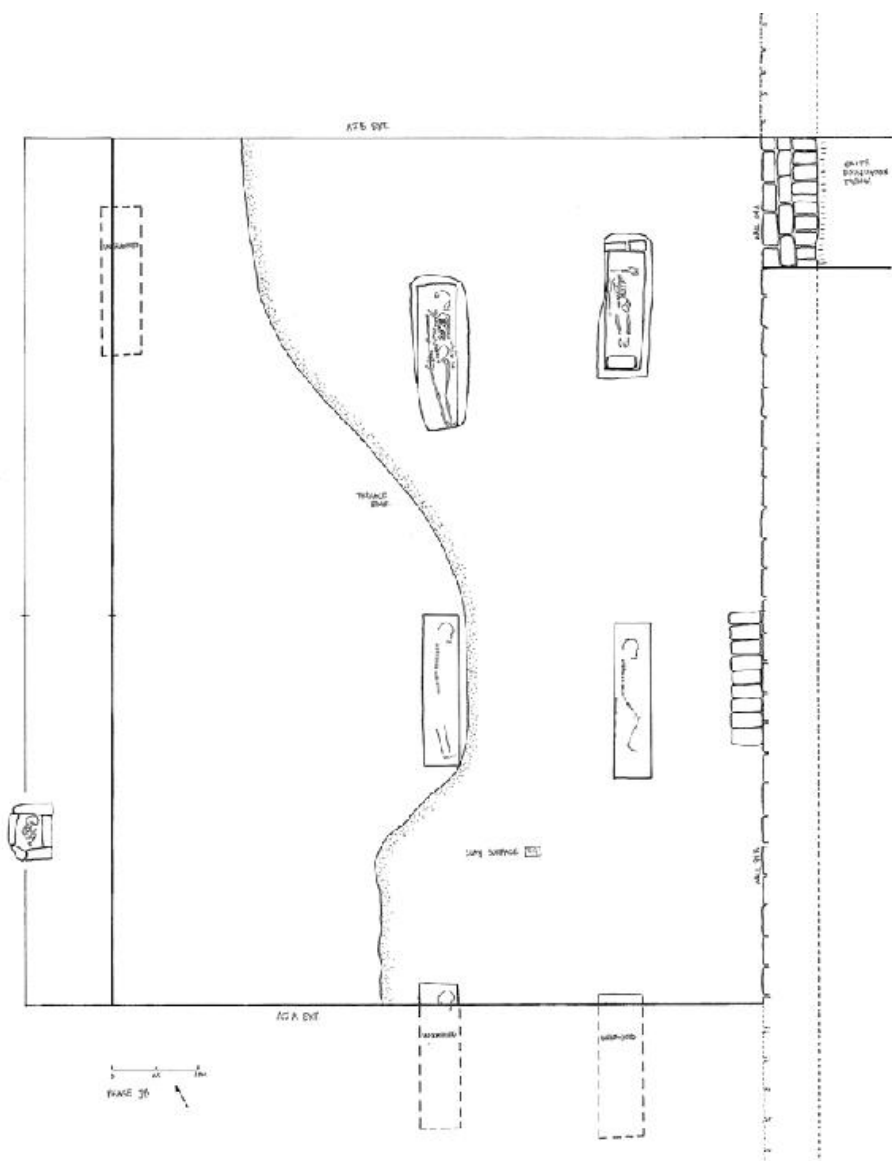


FIG. 60. Phase Ib plan.

The mud-packed surface of the terrace extends westward from the wall for approximately 3.5 meters before the eroded edge of the mound. Cut from this surface were seven reed-matting covered burials and one burial without reed-matting. It is especially intriguing that these burials are so well lined up with each other and perfectly parallel to the temenos wall (Fig. 60). This suggests that the terrace was designed with future burial plots planned, and attests to a revival of long-term planning and organization at the site.

Sometime after the burials were interred west of AJ-B ext./Wall04A,

the wall fell into ruin and the area was used as a dump site. The loci of this phase in both units yield large amounts of pottery, and the density of this pottery seems to suggest that this debris was intentionally dumped here from some other part of the site, probably over a very short amount of time, and may relate to the construction of the late First Intermediate Period or Middle Kingdom incarnation of the temple (now obliterated by New Kingdom foundation cutting). Though no architecture overlies this fill in the units under discussion in this report, approximately 4 meters to the north of AJ-B ext., a thin layer of architecture is preserved. This material has not been excavated yet, but it was cleared of top soil and preliminarily planned. While the architecture is difficult to decipher, two important pieces of data have emerged. First, Phase Ib's temenos wall (AJ-B ext./Wall04A = AJ-A ext./Wall 99B) extends northwards where the cleaning indicated that the thin layer of architecture clearly overlaid the wall. This thin layer, then, appears to have been the architecture intended to be supported by the Phase Ia fill, and therefore should be attributed to Phase Ia. Second, fragments of pottery revealed in the cleaning suggest a late First Intermediate Period or early Middle Kingdom date of construction.

III. CORE RESULTS

In 2001, we reached the 1st Dynasty architecture of Phase VI in AJ-A ext. At that time Larry Pavlish of the University of Toronto undertook a brief augering project to discover where the water table lay in this field, for we expected to encounter it very soon based on the experience of other excavations in the Delta.¹⁰⁶ Much to our surprise and excitement, the coring project determined that more than four meters of dry, excavatable earth lay beneath the 1st Dynasty architecture. Further, augering revealed that the cultural terminus was located at approximately 1.5 meters ASL, i.e. 3.5 meters below the 1st Dynasty remains. Ceramics pulled out of the coring sample included sherds belonging to the Buto-Ma'adi culture of ~3800 BCE. This geological windfall is truly unique. The ability to uncover the entire sequence of the First Dynastic Cycle using normative excavations techniques presents a remarkable opportunity. The stratigraphic material presented in this report, along with the material that will come out of continued excavation in these units, will serve as a benchmark against which excavation material from other sites, which do not share Mendes' geologic boon and rely on fractured sequences, may be correlated.

IV. ESTABLISHING A NEW GRID

Most of our work in 2007 concentrated in AJ-B ext. Here, we added a 1.5m extension to the north side of the unit and reexcavated from the top down to Phase IV (where AJ-B ext. stopped in the 2005 season). One goal accomplished in this expansion of AJ-B ext. was to lay a new 10m $\times$ 10m grid over the west side of the site that would accommodate our plan for future excavation. Extending AJ-B ext. 1.5m to the north created one 10m $\times$ 10m square out of AJ-A ext. and AJ-B ext. The excavation of the 1.5m extension allowed us to plot points for the establishment of a new grid. These points have been entered into Arcview GIS software and a grid extrapolated for the western portion of the tell. We are now in the process of producing new maps of this grid and creating conversion formulae for the New York University 1960s survey plan. These will be available in our next report. The larger unit divisions noted on Figure 3 containing both AJ-A ext. and AJ-B ext. and also abutting the western face of the mudbrick platform reflect the first 10m $\times$ 10m grid point from which the rest of the grid is being extrapolated.

V. PRELIMINARY INTERPRETATIONS

The earliest stratified material excavated at the site was discovered by the Wenke and Brewer excavations in the early 1990s. Their work exposed the transitional layers during which the Buto-Maadi culture was replaced by the Naqada II culture.¹⁰⁷ Other ceramic finds from around the site including fill deposits in Field AJ North clearly indicate that the site was occupied during the Buto-Maadi period. Our excavations in Field AJ North have been designed to capitalize on the early discoveries at the site and connect them to a sequence spanning the entirety of the First Dynastic Cycle (see Table 2).

Our earliest material excavated in Field AJ North thus far dates to the early First Dynasty before the reign of King Den. There, in Phase VIII and VII we have uncovered a series of domestic remains characterized by ephemeral surfaces, hearths, and pits, culminating in the large domestic building of Phase VII, AJ-U/Structure 05b.

The transition between Phase VII and VI is of some significance. The domestic character of Phase VII is clear from the burials of the two children within the floor raisings and by the attestation of cooking-pot hearths. Phase VII ends with a major renovation in which many of the walls of the AJ-U building were dismantled and altered to suit a completely new purpose in Phase VI. The new architecture of Phase VI, characterized by its circular walls, stands in stark contrast to

contemporary domestic architecture. The increase in bread moulds and the hearth-type burns on the floor of the buildings is suggestive of bread production and storage. Seal impressions, of which the *n(s)-k3* impression is only one example, found within the new buildings are highly suggestive of administrative rather than domestic activity. Parallel circular structures from the 4th Dynasty town at Giza provide support for this conclusion. There, the remains of seven circular structures clearly associated with an administrative building were discovered.¹⁰⁸

The transition from domestic area to administrative area is best viewed in terms of the greater historical context. Sometime before the end of the reign of King Den in the middle of the 1st Dynasty, the power and bureaucracy of the recently established state had arrived at Mendes with enough authority to requisition the land it wanted to suit its own purposes. The attestation of Den in this context is perhaps not coincidental. The reign of King Den has long been seen as a reign of great importance and marking “a significant stage in the cultural and material development of Early Dynastic Egypt.”¹⁰⁹ The royal *nswt-bity* title first appears in his reign.¹¹⁰ The collection of elite tombs at Saqqara, Abu Rawash, and Helwan form the largest collection of elite tombs from any single reign up to that point, suggesting a change in the structure of the government that would accommodate a larger body of officials.¹¹¹ Perhaps in connection with these governmental changes, Den conducted a major census of the Delta and the eastern colonies.¹¹² Den’s *nbtj* name, *h3stj*, and numerous annals entries attest a military interest in the eastern frontier.¹¹³ And, in addition to major developments in arts and crafts during his reign, his tomb at Abydos was the first to use monumental stone construction and the first tomb to be given a stairway,¹¹⁴ marking a significant adjustment to the way a tomb would be constructed and at what stage in that process the king could be interred. These achievements, the presumed administrative reforms that took place during his reign, and his apparent interest in the eastern Delta may be the direct cause of the changes reflected at Mendes from Phase VII to Phase VI.

While Phase Vb is a new architectural phase, the administrative character appears to continue from Phase VI. Phase Vb appears to have been abandoned at some point in the early to middle of the Second Dynasty (before Naqada IID3 based on the ceramic assemblage). For the abandonment of Phase Vb to be tied to events on a national scale, one could look to the general unrest attested in several inscriptions throughout the 2nd Dynasty. The Palermo Stone’s Year 13 entry of Ninetjer records the “hacking up of *šm-r* and *h3*,”¹¹⁵ which has been taken to refer to a campaign in the Delta, is one indication of such tension.¹¹⁶ Most indicative are the attestations of

northern campaigns by Khasekhemway, the most glaring being the two statues from Hierakonpolis claiming the vanquishing of 47,209 northern enemies.¹¹⁷ Whatever the specifics of these events, it seems clear that the Delta in the 2nd Dynasty saw turmoil. We hypothesize here that this led to a contraction, if not complete abandonment, of the settlement (particularly in state activity) at Mendes.

The revival of activity in Field AJ North is marked by the deposition of the Dense Sherd Layer (Phase Va), which appears to have been the dumping of construction debris relating to deep foundation digging. The fact that this deposit was found not only in Field AJ North, but also by the NYU excavations 50 meters east, attests to the enormity of the building project. This has led us to suggest that the massive mud brick platform discovered by Donald Redford was, indeed, that construction project. Upon completion of the platform, bread and beer baking facilities were constructed in Field AJ North (Phase IV) as support stations for the new temple. The ceramic evidence from Phase IV points very strongly to a late 2nd to early 3rd Dynasty date for the revival of the site. And the new massive construction project and the added Manethonian support both suggest that this revival was initiated directly by the state.

From Phase Vb (1st–2nd Dynasty) through Phase IV to Phase III (4th+ Dynasty) we see a major shift in ceramic traditions. The same transition observed all over Egypt and has been attributed to developments in food production technology by Hendrikx, *et al.*, specifically milk production in the case of Meidum Bowls and beer production in the case of Old Kingdom beer jars. This has been tied to the “growing number of professionals in the administration, religion and crafts, who had to be provided with food.”¹¹⁸ This change takes place over a long period of time, beginning around the reign of King Den, in the Naqada IIIC2.¹¹⁹ It is also notable that our excavations and preliminary zooarchaeological research conducted by Brian Hesse and Deirdre Fulton have revealed a shift in taxon abundance ratios of pig to cattle at precisely this same time.¹²⁰ In the Early Dynastic levels VII–V, pig is the most abundant taxon, by far, with scattered wild cattle and hippopotamus. As we transition to Phase IV, however, domestic cattle come to the fore, with pig playing only a minor role, and wild cattle and hippopotamus disappearing all together.

It is not mere coincidence that the biggest leap forward would occur at the outset of the 3rd Dynasty. Khasekhemway’s bloody pacification of the north ushered in an unprecedented period of prosperity and centralized control. This proper “unification” would be taken advantage of and strengthened by Khasekhemway’s successor Netjerikhet. Ideological, technical, and economic changes cascaded through Egyptian culture from the moment Netjerikhet decided to

build his grand mortuary complex at Saqqara. From the outset of such an unprecedented and large-scale project, logistical problems would have become apparent. It is the response to these problems over the course of his project and by his immediate successors, which engenders an entirely new economic system. The resulting new exchange system, requiring corvée labor and bread and beer production on a massive scale, established an economy which inextricably bound King and countrymen.

For the lowest members of society, this meant participation in a system of reciprocity involving labor for the king, remuneration for which was bread and beer rations. For the administrative class, this involved service to the king in exchange for gifts of mortuary architecture, equipment, and offerings (the *ḥtp-dj-nswt*). And for the gods, in return for their divine power to sustain the community, were offerings of bread and beer. The new economic system paid for monumental construction, a prodigious administration, and provisions of bread and beer for both the living and the dead.

The transition of the pottery corpus throughout the late 2nd and 3rd Dynasty is a reflection of this organization and centralization. The transitional period identified as Phase IV in Field AJ North at Mendes indicates the persistence of the earlier styles, but the introduction of the new bread and beer receptacles. The shift in emphasis from pig to domestic cattle at this time is also a reflection of new economic organization. All of this corresponds to the construction of the state-sponsored temple upon the massive mudbrick platform. Throughout the 3rd Dynasty, the new economic system was being honed, perhaps via trial-and-error, but by the reign of Sneferu and Khufu, it was fully operational and is reflected in the fully formed Old Kingdom ceramic repertoire which appears at Mendes in Phase III.

The transition from Phase IV to Phase III is certainly clear architecturally, but Phase III is simply a rebuilding of the earlier architecture on a larger scale and in a more organized manner. The entire period of Phase IV and Phase III, ceramically covers the entire Old Kingdom from the 3rd Dynasty through the 6th Dynasty. Dating the exact transition from Phase IV to III is made difficult by this smooth transition. What can be said is that Phase III contains none of the Naqada III/IV transitional pottery described for Phase IV. Therefore, Phase III was constructed after the transition had completed as early as the 4th Dynasty (no earlier). Additionally, it seems overly simplified to suggest that the switch of pottery from Naqada III/IV to classic Old Kingdom must match up to the rebuilding of the bread and beer production facility in Phase III. The date of the original construction for Phase III would thus probably be best confined to the 4th Dynasty. Phase III had at least two subphases, the

most significant of which was Phase III late (see Fig. 48). At this time, AJ-B ext./Structure 05 was enlarged and a circular silo constructed in its south east corner. The enlargement of this structure is best considered alongside other changes at the site in the Old Kingdom.

Concurrent with the middle of the 5th Dynasty, a substantial provincial cemetery began to emerge, which, over the course of the 5th and 6th Dynasties would expand organically from its original location directly east of the temple platform to the north around the temple (Fig. 3). Approximately 50 meters east of Field AJ North, at NYU's level 1965/6 IIIC, NYU discovered three mastabas which are probably some of the earliest mastabas in the series (certainly the earliest discovered to date).¹²¹ To the north of Field AJ North, they also discovered a number of mastabas from the 6th Dynasty datable by the attestations of Teti and Pepi in the names of the individuals.¹²² Additionally, just south of Field AJ North, in Field AJ South, the Pennsylvania State University expedition has excavated a baking facility contemporary with Phase III.¹²³ Field AJ, with its brewery, and the Field AJ South bakery were undoubtedly intended as support for the new provincial cemetery and temple.

It is not clear how provincial temples and their associated brewing and baking facilities were being supported before the mid-5th Dynasty. The king does not seem to have been involved in providing directly for local cults, only royal/national cults.¹²⁴ Though the king occasionally provided the upfront money for the establishment or official establishment of local cults (as suggested for the mudbrick platform, above), local cult-temples in the Early Dynastic period and early Old Kingdom do not appear to have received any significant endowments from the royal authority.¹²⁵ Evidence for change in this policy is evident from the Old Kingdom royal decrees, most exemplary the 6th Dynasty decrees from Coptos. From these decrees it is clear that the establishment of endowed estates, staff, and an administration is occurring at these local-cult centers and that the institution of the Per-Shena and its administration ceased being part of a palace-centered economy and was migrated over to the provincial temples, initiating a direct temple-based economy.¹²⁶ This Per-Shena had already established itself within the palace sphere as a bureaucratic office whose personnel worked in bakeries and breweries, and oversaw related craftsmen such as potters and builders.¹²⁷ In the various decentralizing reforms of the 5th Dynasty, this institution was redeployed under the jurisdiction of provincial temples.

It is justifiable to trace the beginnings of the establishment of the economic entity of the provincial temple, and this migration of the Per-Shena from the king's purview to the provincial temples, back to the administrative reforms of the 5th Dynasty. Neferirkare was the

earliest king on record to decree the establishment of permanent exclusive personnel for provincial cults (Abydos).¹²⁸ As governmental reforms were beginning, the provinces in Upper Egypt began to accumulate unprecedented power and wealth.¹²⁹ The transfer of local economic jurisdiction from the central authority to the provincial temples lead very quickly to a rise in influence of local cults¹³⁰ and the ability for local priesthoods to develop provincial cemeteries.¹³¹ The mastaba of Aha-pw-Ba seems to have been one of the earliest mastaba-tombs that belong to this new provincial cemetery at Mendes.¹³² These events in Upper Egypt have been long recognized, but we have had almost no evidence until now concerning the Delta provinces.

Despite the general *rise* in number of provincial officials and the clear *drop* in that of Memphite officials as a result of these 5th Dynasty reforms,¹³³ most scholars have speculated that the Delta remained firmly under the purview of the central authority because of its proximity to the capital. This perception is undoubtedly related to the dearth of archaeological and textual data pertaining to the Delta provinces in this period. The provincial cemetery at Mendes, however, is clear evidence that the Delta provinces were included in the administrative reforms and that the decentralization of Egypt during the 5th and 6th Dynasties was an intentional plan of policy-makers and reformers. This concerted effort should be seen as part of the trajectory of administrative evolution that has been ongoing since the Early Dynastic period. The 5th/6th Dynasty decentralizing stage of these developments may have been contrived in direct response to the expensive and wasteful practices of the 4th Dynasty massive pyramid construction and an overly palace-centralized control of the country.

The Delta, as exemplified by Mendes, benefited from these reforms. Power was outsourced to the provincial governing bodies and economic control was transferred to the provincial temple administration in the form of the Per-Shena. The power and wealth of the provincial authorities at Mendes positioned them to develop the substantial provincial cemetery, propagate the cult, and provide the proper support and offerings to both; evidence of this support is undoubtedly identifiable in the archaeological record as the architecture in Field AJ North and South in Phase III (late). Whereas the bread and beer production facilities of Phase IV and III early that supported cultic activities were provided for by some as yet unidentified local mechanism, the Phase III beer and bread production facilities contemporary with the new cemetery were probably supplied as part of the Per Shena institution (now managed at the provincial level) which had an economic mandate.

Near the very end of Phase III, there is a significant increase in poorly provisioned burials around the site documented by various

expeditions. In Field AJ South, for example, the baking facility contemporary with much of Phase III (discussed above), was replaced by two large mudbrick mastabas (c. 8m × 9m), one of which held the simple interments of 9 individuals and may have been laid to rest simultaneously at the same time as the mastaba was being constructed. Between the mastabas and the wall were five vault-shaped burial superstructures of similarly interred individuals.¹³⁴ Similar vaulted tombs were constructed between other mastabas throughout the cemetery, as well. In the north eastern corner of the provincial cemetery, in unit AL-K, mastabas similar to those in Field AJ South were also reported.¹³⁵ It appears that poorly equipped burials were laid in any available space that could be found in the cemetery.

Dental enamel analysis was conducted on 88 individuals of the Old Kingdom, First Intermediate Period, and Greco-Roman Period by a Canadian team in the early 1990s.¹³⁶ The results of the analysis of enamel hypoplasia occurrences suggested that the late Old Kingdom saw the most nutritional stress of the whole sample. A statistical analysis showed a reduction in the occurrences of enamel hypoplasia in the First Intermediate Period, perhaps coinciding with the Herakleopolitan reassertion of (semi-)central authority.¹³⁷ The burials represent a complete cross section of population which lends support to a hypothesis that some “global” event affected the local population in the late Old Kingdom and Mendesians perished at an alarming rate.

Since the work of Bell in the 1970s, a good deal of convincing evidence has been amassed for major climatic changes and low Nile floods contributing to the implosion of the state in the late Old Kingdom and early First Intermediate Period.¹³⁸ A recent study provides a striking parallel. The study assesses the global impact of a 1783 CE Icelandic volcano eruption. The investigators have shown conclusively that climate in Africa was affected by the eruption, leading to severely low Niles and famine in Egypt which killed off 1/6th of the population.¹³⁹ Given the hypothesized climatic shifts of this period, it is highly probable that the mass death at Mendes in the late Old Kingdom is the result of the intense famine hypothesized by Bell and paralleled in the Icelandic volcano example. Mendes provides important direct physical evidence of the famine that has often been hypothesized for this period.¹⁴⁰

Phase III came to an end as a terrible cataclysm befell the Mendesians. Everywhere within the vicinity of the temple mound intense destruction was found by both the NYU excavations and the Pennsylvania State University expedition. The temple that once stood atop the platform and the abutting semi-circular court were razed. Some 35 individuals were swept up in the destruction and were found

murdered in the courtyard, destroyed construction materials dumped on their bodies. The great provincial cemetery, too, was looted and pillaged, coffins, funerary items, and bodies were strewn out of the tombs, false doors shattered, and the entire area desecrated.¹⁴¹ West of the naos court, over a meter of earth and ash covered the 5th Dynasty mastabas; the same debris covered uninscribed mastabas found in several places around the mound. Two mastabas discovered in AL-K, had suffered a conflagration indicated by the thick mud and grass coating of the construction which was fired red to a depth of 1–2 millimeters. The walkway between the two mastabas, too, showed evidence of burning, and amid the debris were three smashed jars and a bowl of “late Old Kingdom” date. “Six layers of debris” consisting of contemporary vessels lay atop of this destruction.¹⁴²

The approximate date of this cataclysm is suggested on the basis of a number of different pieces of evidence. First, the pottery of Phase III, can be classified generally as “classic” Old Kingdom, the 4th through the 6th Dynasty.¹⁴³ In particular, the latest subphase of Phase III (that which was subject to the cataclysm) represents well the general corpus of 6th Dynasty pottery from Giza.¹⁴⁴ Second, the succeeding phase, Phase II ceramic assemblage is not too dissimilar, but contains a few new bowls and beaker forms that generally mark a slightly later phase of ceramic development. In particular is the appearance in Phase II of hand moulded direct rim beakers that become indicative of First Intermediate Period pottery nearer to the Herakleopolitan period.¹⁴⁵ At the same time, the FIP/MK thin and long style of bread mould (Jacquet-Gordon, Type C) does not occur in Phase II.¹⁴⁶ Third, the presence of the seal impression of Neferirkare offers a couple of possibilities. If the impression refers to the well-known 5th Dynasty king, we are restricted to dating post-destruction rebuild of Phase II to no later than the end of the 6th Dynasty when his mortuary cult ceases to function.¹⁴⁷ Therefore, the destruction cannot occur later than the 6th Dynasty. If the Abydos “kinglist’s” Neferirkare is our attested here, then we are certainly restricted to the last years of Memphite hegemony at the end of the 8th Dynasty for the construction of Phase II.¹⁴⁸ Given this evidence, a date late in the 6th Dynasty, perhaps in the mid to late reign of Pepi II, for the cataclysmic end of Phase III seems in order.¹⁴⁹

In the immediate aftermath of the massacre, burials were haphazardly cut in the vicinity of the temple mound (Phase III/II). Two were found in Field AJ North (see Fig. 48), several were discovered in Field AJ South, and several were reported by NYU having been cut down through the destruction layer and in some cases cutting through the underlying mastaba’s superstructures.¹⁵⁰ Were these victims of the massacre? This seems the most likely

reconstruction.

At some point not too long after the events, activity in the area of Field AJ North was renewed as Phase II, albeit on a notably smaller and less organized scale. As argued above, Phase II pottery is similar to the latest pottery from Phase III with only a few additions and the notable lack of FIP/MK bread moulds. Additionally, the presence of the seal impression of Neferirkare in Phase IIb, supports a pre-Herakleopolitan date for this modest recovery (whether one prefers a Neferirkare of the 5th or 8th Dynasty).

It is notable that in this recovery that the use of space in Phase II appears to have been similar to that of Phase III. The circular storage facility with the cache of crushed beer jars (see Fig. 56) attest to this. The revival, then, probably saw a significantly humbled reintroduction of cultic activity at the site. The fact that at least as early as the Middle Kingdom, the temple area was recovered as sacred space suggests some degree of population continuity. The massacre, then, does not appear to have resulted in complete abandonment of the site. In the aftermath of the Phase III event, the bodies of the dead were collected and interred as quickly as possible (Phase III/II), and the Mendesians, perhaps lead by the remnants of the surviving priesthood, attempted to reinstitute cult practices in the smoldering ashes of the temple platform, Phase II marking the miserable post-cataclysm continuity of Phase III activity. Given the Neferirkare seal impression from this phase, it is most tempting to attribute Phase II to the brief last days of Memphite control during the 8th Dynasty.

True recovery at Mendes appears to have occurred in Phase Ib with the construction of a new temenos wall surrounding a space directly over the location of the earlier temple platform. Whatever this temenos wall contained is now gone, having been cleared away during later construction on the temple mound. Field AJ North stood just outside of the temenos on the west side of the mound, where a terrace was constructed to receive interments. The spacing and orientation of these burials suggests long term planning. If we presume that the individuals were not interred at once, then we may assume that this terrace was designed to accept burials over time with proper records of the location of others so that there would be order to the overall scheme. Organized bureaucracy had returned to Mendes once again.

Contemporary with the temenos wall, on the east side of the Amasis naos court (above the 6th Dynasty mastaba of Aha-pw-ba) the NYU expedition discovered a large building. The building consisted of three sub-phases (NYU 1965/6 Level II A-C) that the excavators tentatively assigned a First Intermediate Period date.¹⁵¹ Unfortunately, NYU's report delivers very little information about this structure other than the plan, and it does not appear to have been completely excavated.

The building is a large 30m by 40m complex of rooms. At the center is a broad room (larger than the others) with two column bases.¹⁵² A brief note on the pottery discovered within the building makes comparison with Sediment types 29, 30, and 79.¹⁵³ These forms can be correlated with Seidlmayer's important study on the First Intermediate period as his forms ST307, ST304/5, and ST602, respectively.¹⁵⁴ Seidlmayer's dates correspond approximately to the 11th Dynasty, i.e. for a Delta town, the Herakleopolitan period.

The general plan, as exposed, is strikingly similar to the "Great Building" (aka "Big Building") found at Bubastis (Tell Basta) (Fig. 61).¹⁵⁵ There, el-Sawi discovered a large 28 meter square building divided into several rooms, also containing a double-columned broad hall at its center. A storage magazine with nine circular "towers" in the northern-most chamber lead him to suggest that this building may have been used for the collection of taxes. Certainly, elite housing is an equally viable option where the storage silos serve to store accumulated family wealth. The columned room with multiple adjacent rooms and storage magazines is generally consistent with domestic structures from the Old and Middle Kingdoms: Djoser's royal pavilion at Saqqara, houses for the priests of Khentkawes (Dyn. IV) at Giza,¹⁵⁶ and especially the Middle Kingdom mansions at Lahun (albeit on a smaller scale).¹⁵⁷ Many of these examples have a columned reception hall or common room and this columned central area is common to most known house models from all periods and classes.¹⁵⁸

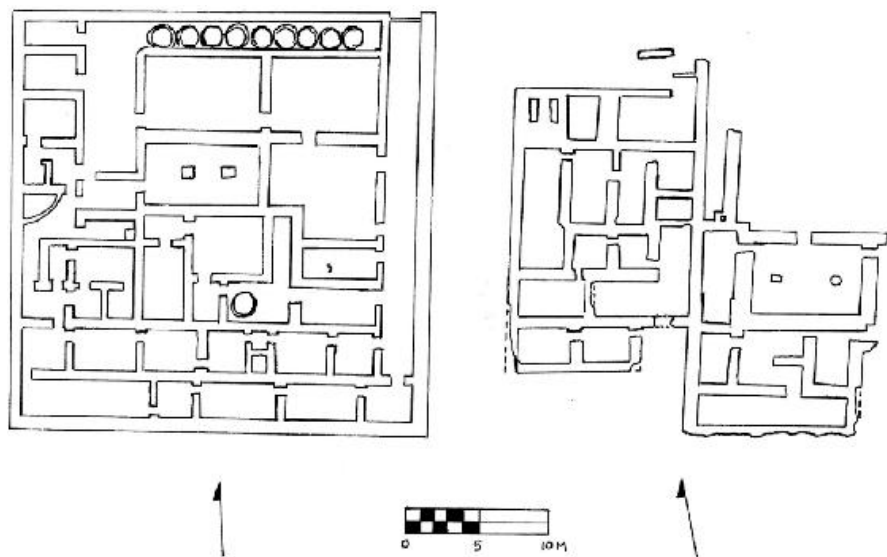


FIG. 61. Great Building from Bubastis (left) and the Phase Ia building from Mendes (right).

It is not yet clear how long this Herakleopolitan revival lasted. Just north of Field AJ North, the terrace was filled in and the temenos cut down to make way for grander Middle Kingdom architecture in Phase Ia. This as yet unexcavated level promises to yield much new evidence in future seasons for the effect on Mendes of the reunification of Egypt by Montuhotep II.

As we have seen, excavation at Mendes has yielded a unique opportunity to bear archaeological witness the entire First Dynastic Cycle. Field AJ North reveals the history of the early days of the young Egyptian state, the growth of that state to its apex, the catastrophic events that bring the first iteration of the Dynastic Cycle to a close, and the revival of Mendes at the dawn of a new Dynastic cycle. Further excavations at Mendes, in Field AJ North in particular promise to shed new light on this period in both the near and distant future.

1 This project is carried out under the direction of Donald B. Redford with the author as field supervisor. The material covered in this report provided the basis for the author's 2007 PhD dissertation, Matthew J. Adams, *The Early Dynastic through Old Kingdom Stratification at Tell er-Rub'a, Mendes*, PhD dissertation, The Pennsylvania State University (2007). The material covered herein continues to be the subject of excavation by the author as part of the Mendes Expedition, directed by Donald B. Redford, and is also a core data-set for a new survey and excavation project, The Mendes Periphery Project, directed by the author. I would like to thank Margaret E. Cohen for her dedicated work preparing plans and pottery drawings for this report.

2 Two earlier enclosure walls, one of Nectanebo and one of the New Kingdom have been discovered; see Donald B. Redford, *Excavations at Mendes, Volume 1. The Royal Necropolis*, Culture and History of the Ancient Near East 20, Leiden: Brill (2004).

3 For a *Baugeschichte* of the temple remains, see Donald B. Redford, "An Interim Report on the Temple of the Ram-god at Mendes," *Delta Reports* 1 (2008).

4 Recent excavations by The Pennsylvania State University Expedition to Mendes have found scant Middle Kingdom remains on this mound. It seems likely that during the Middle Kingdom, the mound formed by the Old Kingdom mastaba field and temple platform served as the base for a new temple. The later 18th and 19th Dynasty temple cut most of this Middle Kingdom material away. For evidence of a Middle Kingdom temple to the Ram, see, Donald B. Redford, "Mendes and Environs in the Middle Kingdom," *Studies in Honor of William Kelley Simpson*, edited by Peter Der Manuelian, Boston: Museum of Fine Arts (1996); Donald B. Redford, "Report on the Mendes Excavations 2000 (10th Season)," *The Akhenaten Temple Project Newsletter* 2000.3 (2000).

5 This platform was exposed in earlier seasons and will be discussed further below.

6 There was reason to believe that this point in the mound would yield Buto-Maadi material culture at its depths. This was suggested by the success of Wenke and Brewer's excavations in two places approximately 40 meters north and east of the sighting of Field AJ North.

7 Toby A.H. Wilkinson, *State Formation in Egypt, Chronology and Society*, Cambridge Monographs in African Archaeology 40, BAR International Series 651,

Oxford: Tempvs Reparatum (1996): 5.

8 Robert J. Wenke, "The Evolution of Early Egyptian Civilization: Issues and Evidence," *Journal of World Prehistory* 5.3 (1991): 292; Baines and Yoffee were also interested in evaluating the Egyptian and Mesopotamian states on this timescale, John Baines and Norman Yoffee, "Order, Legitimacy, and Wealth in Ancient Egypt and Mesopotamia," pages 199–260 in *Archaic States* edited by Gary M. Feinman and Joyce Marcus, School of American Research, Advanced Seminar Series, Santa Fe: School of American Research Press (1998).

9 Robert J. Wenke, "The Evolution of Early Egyptian Civilization: Issues and Evidence," *Journal of World Prehistory* 5.3 (1991): 292–293.

10 Assessing the development of the Egyptian state on the timescale of the First Dynastic Cycle is not necessarily the best model for assessing specific questions and does not render irrelevant studies which confine their chronological focus. Kathryn Bard, for example, ends her discussion of the rise of complex society as evidenced in burial practices with emergence of centralized authority throughout the Nile valley and Delta at the beginning of the 1st Dynasty, Kathryn Bard, *From Farmers to Pharaohs: Mortuary Evidence for the Rise of Complex Society in Egypt*, Monographs in Mediterranean Archaeology, Sheffield: Sheffield Academic Press (1994). This approach is certainly successful and meaningful, but tracing the mortuary developments through the end of the Old Kingdom would have provided a different and more complete description of the greater innovation arc and change.

11 See descriptions compiled by Herman De Meulenaere and Pierre MacKay in H. De Meulenaere and P. Mackay, *Mendes II*, Aris Phillips Ltd.: Warminster, England (1976).

12 See Herman De Meulenaere and Pierre Mackay, *Mendes II*, Aris Phillips Ltd.: Warminster, England (1976): 14.

13 There are a few early reports of Old Kingdom and Early Dynastic finds at the site before the 1960s. In July 1907, farmers discovered an Old Kingdom tomb that belonged to Ishetef-Tety, see Herman De Meulenaere and Pierre Mackay, *Mendes II*, Aris Phillips Ltd.: Warminster, England (1976): 16, citing Mohammed Effendi Chabân, "Monuments recueillis pendant mes inspections," *Annales du service des antiquités de l'Égypte* 10 (1910): 28–30 and Campbell Cowan Edgar, "Middle Empire tombs in the Delta," in *Le Musée égyptien II* edited by Gaston Maspero, Le Caire: Institut Français d'Archéologie Orientale (1907): 118, who mentioned it in reference to another discovery: "a small group of VIth dynasty tombs (all of them plundered) was discovered on the other side of the Delta at Tell Roba, the site of Mendes, almost beneath the foundations of the temple." This note by Edgar can only be the Old Kingdom tombs investigated later by NYU; Georges Daressy, *Annales du service des antiquités de l'Égypte* 13 (1914): 182; PM IV: 36; During his visit in 1929, Scharff found an archaic knife and diorite vase on the surface of "Tell Timai," Alexander Scharff, "Ein Besuch von Mendes," *Mitteilungen des Deutschen Instituts für Ägyptische Altertumskunde in Kairo* 1 (1930): 130–134.

14 Publications of NYU excavations into First Intermediate Period or earlier material (in chronological order): Donald P. Hansen, "Mendes 1964," *NARCE* 53 (1964): 5–8; Donald P. Hansen, "Mendes 1964," *JARCE* 4 (1965): 31–37; Jean Leclant, *Orientalia* 34 (1965): 179–180, § 6; Jean Leclant, *Orientalia* 35 (1966): 133–134, § 11; Donald P. Hansen, "Excavations at Mendes in Egypt, 1965," *AJA* 70 (1966): 191; Jean Leclant, *Orientalia* 36 (1967): 184, § 6; Donald P. Hansen, "Excavations of a Stratified Pharaonic Site in the Egyptian Delta, at Mendes, 1966 Season," *NARCE* 61 (1967): 9–13; Donald P. Hansen, "Mendes 1965 and 1966. I. The Excavations at Tell el Ruba," *JARCE* 6 (1967): 5–16; Christine L. (Soghor) Lilyquist, "Mendes 1965 and 1966. II. Inscriptions from Tell el Ruba," *JARCE* 6 (1967): 16–32; Jean Leclant, *Orientalia* 37 (1968): 97–98, § 9; Jean Leclant,

Orientalia 38 (1969): 247, § 8; Robert K. Holz, "Man-Made Forms in the Nile Delta," *Geographical Review* 59.2 (1969): 253–269; Herman De Meulenaere and Pierre MacKay, *Mendes II*. Warminster: Aris Phillips Ltd. (1976); Jean Leclant, *Orientalia* 46 (1977): 236, § 8; Jean Leclant, *Orientalia* 47 (1978): 269, § 8; Jean Leclant, *Orientalia* 48 (1979): 346–347, §13; Robert K. Holz, David Stieglitz, Donald P. Hansen, and Edward Ochsenchlager, *Mendes I*, Warminster: Aris Phillips, Ltd. (1980); Jean Leclant, *Orientalia* 49 (1980): 351–352, §11; Karen L. Wilson, "Mendes," *NARCE* 112 (1980): 44–47; Karen L. Wilson, *Mendes. Preliminary Report on 1979–80 Seasons*, Cities of the Delta II, ARCER 5 Undena: Malibu (1982); Susan I. Allen and Karen L. Wilson, "Excavations at Mendès 1976–79," in *L'Égyptologie en 1979. Axes prioritaires de recherché, I*, Colloques Internationaux du Centre National de la Recherche Scientifique, Paris: Éditions du Centre National de la Recherche Scientifique (1982): 139–151; Helen Jacquet-Gordon, review of Robert K. Holz, David Stieglitz, Donald P. Hansen, and Edward Ochsenchlager, *Mendes I*, *JEA* 72 (1986): 207–209; Donald P. Hansen, "Mendes, Dynastic evidence," pages 497–498 in *Encyclopedia of the Archaeology of Ancient Egypt*, edited by Kathryn A. Bard, London: Routledge (1999).

15 Publications of Brewer and Wenke excavations into First Intermediate Period or earlier material (in chronological order): Renee F. Friedman, "Mendes/Tell el-Roba, 1990," *Bulletin de Liaison du Groupe International d'étude de la Céramique Égyptienne* XV (1991); Douglas J. Brewer and Robert J. Wenke, "Transitional Late Predynastic – Early Dynastic Occupations at Mendes: a Preliminary Report," pages 191–197 in *The Nile Delta in Transition: 4th–3rd Millennium B.C.*, edited by Edwin C.M. van den Brink, Tel Aviv: Edwin C.M. van den Brink (1992); Renee F. Friedman, "The Early Dynastic and Transitional Pottery of Mendes: The 1990 Season," pages 199–205 in *The Nile Delta in Transition: 4th–3rd Millennium B.C.*, edited by Edwin C.M. van den Brink, Tel Aviv: Edwin C.M. van den Brink (1992); Jean Leclant and Gisèle Clerc, *Orientalia* 61 (1992): 231, § 20; Jean Leclant and Gisèle Clerc, *Orientalia* 62 (1993): 182–184, § II; Robert J. Wenke and Douglas J. Brewer, "The Archaic-Old Kingdom Delta: the Evidence from Mendes and Kom El-Hisn," pages 265–285 in *Haus und Palast im Alten Agypten*, edited by Manfred Bietak, Wien: Verlag der Österreichischen Akademie der Wissenschaften (1996); Douglas J. Brewer, Robert J. Wenke, John Isaacson, and Daniel Haag, "Mendes regional archaeological survey and remote sensing analysis," *Sahara* 8 (1996): 29–42; Robert J. Wenke, "Anthropology, Egyptology and the Concept of Cultural Change," pages 117–136 in *Anthropology and Egyptology. A Developing Dialogue*, edited by Judith Lustig, Monographs in Mediterranean Archaeology, 8, Sheffield: Sheffield Academic Press (1997); Robert J. Wenke, "Mendes, Predynastic and Early Dynastic," pages 499–500 in *Encyclopedia of the Archaeology of Ancient Egypt*, edited by Kathryn A. Bard, London: Routledge (1999).

16 Donald B. Redford, "The Director's Report on the 1994 Field Season at Mendes," *The Akhenaten Temple Project Newsletter* 1994:4 (1994); Jean Leclant and Gisèle Clerc, *Orientalia* 64 (1995): 239–240, § 9; Donald B. Redford, "The Fifth Season of Excavation at Mendes," *The Akhenaten Temple Project Newsletter* 1995:4 (1995); Jean Leclant and Gisèle Clerc, *Orientalia* 65 (1996): 246–247, § 19; Donald B. Redford, "Five Years of Excavation at Mendes," *The Akhenaten Temple Project Newsletter* 1996:2 (1996); Gregory D. Mumford, "A First Intermediate Period Cemetery and Late Old Kingdom Mastaba Field at Mendes," *The Akhenaten Temple Project Newsletter* 1996:2 (1996); Donald B. Redford, "Mendes Environs in the Middle Kingdom," pages 679–682 in *Studies in Honor of William Kelley Simpson*, edited by Peter Der Manuelian, Boston: Museum of Fine Arts (1996); Jean Leclant and Gisèle Clerc, *Orientalia* 67 (1998), 328; Donald B. Redford, "The Eighth Campaign of Excavations at Mendes," *The Akhenaten Temple Project Newsletter*

1998:3 (1998); Jean Leclant and Gisèle Clerc, *Orientalia* 68 (1999), 326–7; Donald B. Redford, “The Ninth Campaign at Mendes (Summer, 1999),” *The Akhenaten Temple Project Newsletter* 1999:1 (1999); Jean Leclant and Gisèle Clerc, *Orientalia* 69 (2000): 221; Gregory Mumford, “The First Intermediate Period: Unravelling a ‘Dark Age’ at Mendes and Tell Tebilla,” *The Akhenaten Temple Project Newsletter* 2000:1 (2000); Donald B. Redford, “Report on the Mendes Excavations 2000 (10th Season),” *The Akhenaten Temple Project Newsletter* 2000.3 (2000); Donald B. Redford, “Report on the 9th Season of Excavation at Tell el-Ruba/Mendes,” *Annales du service des antiquités de l’Égypte* 75 (1999–2000).

17 Donald B. Redford, “Report on the Mendes Excavations 2000 (10th Season),” *The Akhenaten Temple Project Newsletter* 2000:3 (2000).

18 Thomas von der Way, “Excavations at Tell el-Fara’in/Buto in 1987–1989,” pages 1–10 in *The Nile Delta in Transition*, edited by E.C.M. van den Brink, Tel Aviv: van den Brink (1992); Thomas von der Way, *Tell el-Fara’in-Buto I, Ergebnisse zum frühen Kontext, Kampagnen der Jahre 1983–1989*, Archäologische Veröffentlichungen, Deutsches Archäologisches Institut Abteilung Kairo, 83, Mainz: Verlag Philipp von Zabern (1997); E. Christiana Köhler, *Tell el-Fara’in, Buto III, Die Keramik von der späten Naqada-Kultur bis zum frühen Alten Reich (Schichten III bis VI)*, Mainz: Verlag Philipp von Zabern (1998).

19 The catalog of these Forms from all of Field AJ will be published separately.

20 Hans-Åke Nordström and Janine Bourriau, “Ceramic Technology: Clays and Fabrics,” pages 144–191 in *An Introduction to Ancient Egyptian Pottery*, edited by Dorothea Arnold and Janine Bourriau, Deutsches Archäologisches Institut Abteilung Kairo, Mainz am Rhein: Verlag Philipp von Zabern (1993).

21 Violet zoning can occur when the firing temperature has reached the fabric’s vitrification point, see Hans-Åke Nordström and Janine Bourriau, “Ceramic Technology: Clays and Fabrics,” pages 144–191 in *An Introduction to Ancient Egyptian Pottery*, edited by Dorothea Arnold and Janine Bourriau, Deutsches Archäologisches Institut Abteilung Kairo, Mainz am Rhein: Verlag Philipp von Zabern (1993): 166.

22 See Stan Hendriks, Dina Faltings, Lies Op de Beck, Dietrich Raue and Chris Michiels, “Milk, Beer and Bread Technology during the Early Dynastic Period,” *MDAIK* 58 (2002): 277–304. Brian Hesse and Deirdre Fulton, “Mendes 2007 Field Search Zooarchaeological Research Project Initial Report, December 2007,” unpublished preliminary report (2007).

23 For similar examples of fetus/neonate settlement burials from the Predynastic settlement at Maadi, see Ibrahim Rizkana and Jürgen Seeher, *Maadi III, The Non-Lithic Small Finds and the Structural Remains of the Predynastic Settlement*, Mainz am Rhein: Verlag Philipp von Zabern (1989): 65–68, especially discussion of infant burials therein.

24 See Renee F. Friedman, “Mendes/Tell el-Roba, 1990,” *Bulletin de Liaison du Groupe International d’étude de la Céramique Égyptienne* XV (1991); Renee F. Friedman, “The Early Dynastic and Transitional Pottery of Mendes: The 1990 Season,” pages 199–205 in *The Nile Delta in Transition: 4th–3rd Millennium B.C.*, edited by Edwin C.M. van den Brink, Tel Aviv: Edwin C.M. van den Brink (1992).

25 Pierre de Miroshedji, Moain Sadek, Dina Faltings, V. Boulez, L. Naggia-Moliner, N. Sykes, and M. Tengberg, “Les Fouilles de Tell es-Sakan (Gaza): Nouvelles Données sur les Contacts Égypto-Cananéens aux IV^e–III^e Millénaires,” *Paléorient*, vol. 27/2 (2001): 85–88.

26 E. Christiana Köhler, “The Pre- and Early Dynastic Pottery of Tell el-Fara’in (Buto),” pages 11–22 in *The Nile Delta in Transition: 4th–3rd Millennium B.C.*, edited by Edwin C.M. van den Brink, van den Brink, Tel Aviv (1992); E. Christiana Köhler, *Tell el-Fara’in. Buto III. Die Keramik von der späten Naqada-Kultur bis zum frühen Alten Reich (Schichten III bis VI)*, Mainz: Verlag Philipp von Zabern (1998).

27 Stan Hendrickx, "Predynastic-Early Dynastic Chronology," pages 55–93 in *Ancient Egyptian Chronology*, Handbook of Oriental Studies, edited by Erik Hornung, Rolf Krauss, and David A. Warburton, Leiden: Brill (2006): 81–88; E. Christiana Köhler, "On the Origins of Memphis – The New Excavations in the Early Dynastic Necropolis at Helwan," pages 296–315 in *Egypt at its Origins: Studies in Memory of Barbara Adams*, edited by S. Hendrickx, R.F. Friedman, K.M. Ciałowicz, and M. Chłodnicki, *Orientalia Lovaniensia Analecta* 128, Leuven: Peeters (2004).

28 See parallel examples at various sites all over Egypt from Buto to Elephantine: E. Christiana Köhler, *Tell el-Faraʿīn. Buto III. Die Keramik von der späten Naqada-Kultur bis zum frühen Alten Reich (Schichten III bis VI)* Mainz: Verlag Philipp von Zabern (1998); Peter Kopp, *Elephantine XXXII: Die Siedlung der Naqadazeit*, Mainz am Rhein: Verlag Philipp von Zabern (2006): Tafel 19.

29 E. Christiana Köhler, *Tell el-Faraʿīn. Buto III. Die Keramik von der späten Naqada-Kultur bis zum frühen Alten Reich (Schichten III bis VI)*, Mainz: Verlag Philipp von Zabern (1998): 88.

30 Christiana Köhler, "The Pre- and Early Dynastic Pottery of Tell el-Faraʿīn (Buto)," pages 11–22 in *The Nile Delta in Transition: 4th–3rd Millennium B.C.*, edited by Edwin C.M. van den Brink, van den Brink, Tel Aviv (1992); E. Christiana Köhler, *Tell el-Faraʿīn. Buto III. Die Keramik von der späten Naqada-Kultur bis zum frühen Alten Reich (Schichten III bis VI)*, Mainz: Verlag Philipp von Zabern (1998).

31 See, for example, Karla Kroeber and Dietrich Wildung, *Minshat Abu Omar: Ein vor- und frühgeschichtlicher Friedhof im Nildelta Bd 2: Graber 115–204*, Mainz: Verlag Philipp von Zabern (2000): 168, 435/3.

32 Helen Jacquet-Gordon, "A Tentative Typology of Egyptian Bread Moulds," pages 11–24 in *Studien zur altägyptischen Keramik*, edited by Dorothea Arnold; Mainz am Rhein: Verlag Philipp von Zabern (1982).

33 Mark Lehner, "The Pyramid Age Settlement of the Southern Mount at Giza," *JARCE* 39 (2002): 59–64.

34 Excavation of this material was still underway at the time of reporting and these plans appear to be preliminary with regard to this area. Mark Lehner, "The Pyramid Age Settlement of the Southern Mount at Giza," *JARCE* 39 (2002): Fig. 16; Mark Lehner and Wilma Wetterstrom (eds.), *Giza Reports, The Giza Plateau Mapping Project, Volume I: Project History, Survey, Ceramics, and Main Street and Gallery III.4 Operations*, Boston: Ancient Egypt Research Associates, Inc. (2007): Area Plan insert.

35 Walter B. Emery, *Great Tombs of the First Dynasty I*, Cairo: Government Press (1949): 109.

36 Thomas von der Way, "Zur Herkunft keramischer Dekorationen des spätvorgeschiedlichen Unterägypten," *Cahiers de la Céramique égyptienne* I (1987) 1–16; Lees Op de Beck, "Restrictions for the Use of Maidum-Bowls as Chronological Indicators," *Chronique d'Égypte* 75 (2000): 1–9.

37 Renée Friedman, "Mendes/Tell el-Roba, 1990," *Bulletin De Liaison du Groupe International D'Étude de la Céramique Égyptienne* XV (1991): 8–13.

38 Susan J. Allen and Karen L. Wilson, "Excavations at Mendes in the Nile Delta, 1976–1979," *L'Égyptologie en 1979. Axes prioritaires de recherches*. Paris, (1982): 142.

39 Donald B. Redford, "The Ninth Campaign at Mendes (Summer, 1999)," *The Akhenaten Temple Project Newsletter* 1999:1 (1999).

40 Just slightly northeast of these units, NYU had sunk a trench to the water table and did not, apparently, encounter this building, see Donald P. Hansen, "Mendes 1964," *Journal of the American Research Center in Egypt* IV (1965): 34–35. It should also be noted that excavation indicated an "intermediate" phase, most of which was cut away by the New Kingdom construction. The date, according to Donald Redford, is early Middle Kingdom, and artifacts and architecture suggest that this structure too was a temple. See Donald B. Redford, "Report on the Mendes Excavations 2000

(10th Season)," *The Akhenaten Temple Project Newsletter* 2000.3 (2000).

41 In its present form, it appears as a platform. It is not yet clear if this was the original appearance, or if the later cutting by the 18th Dynasty temple engineers has created this appearance.

42 Donald B. Redford, "Report on the Mendes Excavations 2000 (10th Season)," *The Akhenaten Temple Project Newsletter* 2000:3 (2000).

43 Donald P. Hansen, "Mendes 1964," *NARCE* 53 (1964): 7. They dug through this platform in one place and determined its depth as 4.25 meters. Below this, a "substantial wall cut across the sounding."

44 Donald B. Redford, "The Ninth Campaign at Mendes (Summer, 1999)," *The Akhenaten Temple Project Newsletter* 1999:1 (1999).

45 Donald B. Redford, "The Ninth Campaign at Mendes (Summer, 1999)," *The Akhenaten Temple Project Newsletter* 1999:1 (1999).

46 For the massacre at Mendes, see Donald B. Redford, "Report on the Mendes Excavations 2000 (10th Season)," *The Akhenaten Temple Project Newsletter* 2000.3 (2000); Donald B. Redford, "Report on the 9th season of Excavation at Tell el-Ruba/Mendes," *Annales du service des antiquites de l'Égypte* 75 (1999–2000).

47 The verb $\nu\omicron\mu\acute{\iota}\zeta\omega$, preserved in Syncellus, applies specifically to the adoption of deities by a group, especially the state, i.e. "to be officially recognized." (Liddell and Scott, 1972: 466). Certainly, this could indicate a state-sanctioned construction project.

48 Translation assistance by Margaret E. Cohen. See also, W.G. Waddell, *Manetho*, Loeb Classical Library, Cambridge: Harvard University Press (1940): 35–41; Gerald P. Verbrughe and John M. Wickersham, *Berosos and Manetho, Introduced and Translated, Native Traditions in Ancient Mesopotamia and Egypt*, Ann Arbor: The University of Michigan Press (2001): 133, 188, and 117 n.57.

49 A Room A was identified during excavation, but turned out to be an exterior area contiguous with the rising surfaces of AJ-B ext.

50 Donald B. Redford, "The Eighth Campaign of Excavations at Mendes," *The Akhenaten Temple Project Newsletter* 1998:3 (1998); Donald B. Redford, "Report on the 9th season of Excavation at Tell el-Ruba/Mendes," *Annales du service des antiquites de l'Égypte* 75 (1999–2000): 18.

51 Helen Jacquet-Gordon, "A Tentative Typology of Egyptian Bread Moulds," pages 11–24 in *Studien zur altägyptischen Keramik*, edited by Dorothea Arnold; Mainz am Rhein: Verlag Philipp von Zabern (1982): 11–24.

52 E. Christiana Köhler, "On the Origins of Memphis – The New Excavations in the Early Dynastic Necropolis at Helwan," pages 296–315 in *Egypt at its Origins: Studies in Memory of Barbara Adams*, edited by S. Hendrickx, R.F. Friedman, K.M. Ciałowicz, and M. Chłodnicki, *Orientalia Lovaniensia Analecta* 128, Leuven: Peeters (2004).

53 Eva-Maria Engel, "Abydos. Umm el-Qa'ab, Grab des Chaseschemui," *Bulletin de Liaison du Groupe International d'étude de la Céramique Égyptienne* XX (1997): 25–28; Eva-Maria Engel, "Abydos. Umm el-Qa'ab, Grab des Chaseschemui," *Bulletin de Liaison du Groupe International d'étude de la Céramique Égyptienne* XXI (2000): 50–58.

54 John Garstang, *Mahasna and Bet Khallaf*, Egyptian Research Account 7, London: Quaritch (1903): Pl. XXX.

55 Christiana Köhler, "The Pre- and Early Dynastic Pottery of Tell el-Fara'in (Buto)," pages 11–22 in *The Nile Delta in Transition: 4th–3rd Millennium B.C.*, edited by Edwin C.M. van den Brink, van den Brink, Tel Aviv (1992); E. Christiana Köhler, *Tell el-Fara'in. Buto III. Die Keramik von der späten Naqada-Kultur bis zum frühen Alten Reich (Schichten III bis VI)*, Mainz: Verlag Philipp von Zabern (1998).

56 E. Christiana Köhler, "On the Origins of Memphis – The New Excavations in the Early Dynastic Necropolis at Helwan," pages 296–315 in *Egypt at its Origins*:

Studies in Memory of Barbara Adams, edited by S. Hendrickx, R.F. Friedman, K.M. Ciałowicz, and M. Chłodnicki, *Orientalia Lovaniensia Analecta* 128, Leuven: Peeters (2004): fig. 6.

57 Dietrich Raue, "XVIII. Ägyptische und nubische Keramik der 1.–4. Dynastie," *Mitteilungen des deutschen archäologischen Institutes, Kairo* 55 (1999): 173–189.

58 K. Aslihan Yener, University of Chicago Oriental Institute, personal communication.

59 Examples were also found by the Wenke and Bewer excavations, see Renee F. Friedman, "Mendes/Tell el-Roba, 1990," *Bulletin de Liaison du Groupe International d'étude de la Céramique Égyptienne* XV (1991): Figure 4b.

60 E. Christiana Köhler, "On the Origins of Memphis – The New Excavations in the Early Dynastic Necropolis at Helwan," pages 296–315 in *Egypt at its Origins: Studies in Memory of Barbara Adams*, edited by S. Hendrickx, R.F. Friedman, K.M. Ciałowicz, and M. Chłodnicki, *Orientalia Lovaniensia Analecta* 128, Leuven: Peeters (2004): fig. 5–6.

61 Eva-Maria Engel, "Abydos. Umm el-Qa'ab, Grab des Chaseschemui," *Bulletin de Liaison du Groupe International d'étude de la Céramique Égyptienne* XX (1997): 25–28, Abb. 8.

62 John Garstang, *Mahasna and Bet Khallaf*, Egyptian Research Account 7, London: Quartich (1903): Pl. XXX, 1 and 11.

63 E. Christiana Köhler, "On the Origins of Memphis – The New Excavations in the Early Dynastic Necropolis at Helwan," pages 296–315 in *Egypt at its Origins: Studies in Memory of Barbara Adams*, edited by S. Hendrickx, R.F. Friedman, K.M. Ciałowicz, and M. Chłodnicki, *Orientalia Lovaniensia Analecta* 128, Leuven: Peeters (2004): fig. 6.

64 William Kelly Simpson, *The Mastabas of Kawab, Khafkhufu I and II*, Giza Mastabas 3, Boston: Museum of Fine Arts (1978): fig. 71.

65 Teodozja Isabela Rzeuska, "3. Saqqara West 1998," *Bulletin de Liaison du Groupe International d'étude de la Céramique Égyptienne* XXII (2004): fig. 6.

66 Colin A. Hope and Ann McFarlane, *Akhmim in the Old Kingdom, Part II: The Pottery, Decoration Techniques and Colour Conventions*, The Australian Centre for Egyptology: Studies 7, Oxford: Aris and Phillips, Ltd. (2006): fig. 1, form AI b.1.

67 For Meidum Bowls, see, W.M. Flinders Petrie, *Medum*, London: Quaritch (1892): 35–36; P. Ballet, "Essai de classification des coupes type Maidum-Bowl du sondage nord de 'Ayn-Asīl (Oasis de Dakhla). Typologie et evolution," *Cahiers de la Céramique égyptienne* I (1987): 1–16; Lees Op de Beck, "Restrictions for the Use of Maidum-Bowls as Chronological Indicators," *Chronique d'Égypte* 75 (2000): 5–12; Lees Op de Beck, "Possibilities and Restrictions for the Use of Maidum-Bowls as Chronological Indicators," *Cahiers de la Céramique Égyptienne* 7 (2004): 239–280; Stan Hendrixx, Dina Faltings, Lies Op de Beck, Dietrich Raue and Chris Michiels, "Milk, Beer and Bread Technology during the Early Dynastic Period," *MDAIK* 58 (2002): 277–304; See also Dina Faltings, *Die Keramik der Lebensmittelproduktion im Alten Reich: Ikonographie und Archäologie eines Gebrauchsartikels*, SAGA 14 (Heidelberg, 1998): 244–5.

68 Lees Op de Beck, "Possibilities and Restrictions for the Use of Maidum-Bowls as Chronological Indicators," *Cahiers de la Céramique Égyptienne* 7 (2004): 242.

69 For example, Ann Macy Roth, *A Cemetery of Palace Attendants, Giza Mastabas*, Volume 6, Boston: Museum of Fine Arts (1995): Fig. 86, type c-xxx a(2).

70 W.M. Flinders Petrie, Ernest Mackay, and Gerald Wainwright, *Meydum and Memphis (III)*, British School of Archaeology in Egypt and Egyptian Research Account Sixteenth Year, 1910, London: Quartch (1910): pl. XXV (11, 12).

71 See Miroslav Barta, "Several Remarks on Beer Jars Found at Abusir," *Cahier de la Céramique Égyptienne* 4 (1996): 128–131.

72 A similar form, Form 175 (Figure 40: 15) does not technically have a thickened external lip, but is clearly related to the Thickened External Lip Tureens above. In this form, the walls, rim, and lip are all essentially the same thickness. However, the lip is clearly distinguished from the body of the vessel by an incised mark. This form is more restricted than the Form 23 examples in this and is anomalously decorated with a full red slip. This may be an evolutionary missing link to tureens of Phase III.

73 Eva-Maria Engel, "Abydos. Umm el-Qa'ab, Grab des Chaschemui," *Bulletin de Liaison du Groupe International d'étude de la Céramique Égyptienne XX* (1997): 25–28, Abb. 5.

74 See Dina Faltings, *Die Keramik der Lebensmittelproduktion im Alten Reich: Ikonographie und Archäologie eines Gebrauchsartikels*, SAGA 14 (Heidelberg, 1998): 121–136.

75 Helen Jacquet-Gordon, "A Tentative Typology of Egyptian Bread Moulds," pages 11–24 in *Studien zur altägyptischen Keramik*, edited by Dorothea Arnold; Mainz am Rhein: Verlag Philipp von Zabern (1982): 11–24.

76 Matthew J. Adams, "Bread Baking and the Evolution of the Egyptian State," (forthcoming).

77 Helen Jacquet-Gordon, "A Tentative Typology of Egyptian Bread Moulds," pages 11–24 in *Studien zur altägyptischen Keramik*, edited by Dorothea Arnold, Mainz am Rhein: Verlag Philipp von Zabern (1982); Dina Faltings, *Die Keramik der Lebensmittelproduktion im Alten Reich: Ikonographie und Archäologie eines Gebrauchsartikels*, SAGA 14, Heidelberg (1998): abb. 9a-10b.

78 See Dina Faltings, *Die Keramik der Lebensmittelproduktion im Alten Reich: Ikonographie und Archäologie eines Gebrauchsartikels*, SAGA 14, Heidelberg (1998): 60–88.

79 Form AB2 at the Giza pyramid town, Mark Lehner and Wilma Wetterstrom, *Giza Reports, The Giza Plateau Mapping Project, Volume I: Project History, Survey, Ceramics, and Main Street and Gallery III.4 Operations*, Boston: Ancient Egypt Research Associates, Inc. (2007): Fig. 11.8; From the tomb of Wash-Ptah, Selim Hassan, *Excavations at Giza, Volume III, 1931–1932*, Cairo: The Faculty of Arts, Fouad I University (1941): Fig. 5 and pl. II (2); Kent R. Weeks, *Mastabas of Cemetery G 6000*, Giza Mastabas, Volume 5 Boston: Museum of Fine Arts (1994): fig. 129 (25–11–50).

80 Data excavated in the 2007 season suggest that there may actually have been 3 sub-phases, but this has not been properly sorted out, yet.

81 Donald B. Redford, "The Ninth Campaign at Mendes (Summer, 1999)," *The Akhenaten Temple Project Newsletter* 1999:1 (1999).

82 Donald B. Redford, "The Ninth Campaign at Mendes (Summer, 1999)," *The Akhenaten Temple Project Newsletter* 1999:1 (1999); Donald B. Redford, "Report on the Mendes Excavations 2000 (10th Season)," *The Akhenaten Temple Project Newsletter* 2000:3 (2000).

83 Donald B. Redford, "Report on the 11th Season of Excavations at Tell er-Rub'a (Mendes)," *The Akhenaten Temple Project Newsletter* 2001:3 (2001).

84 See Donald B. Redford, "An Interim Report on the Temple of the Ram-god at Mendes," *Delta Reports* 1 (2008).

85 George A. Reisner, *A History of the Giza Necropolis, Volume II: The Tomb of Hetep-heres the Mother of Cheops*, Cambridge: Harvard University Press (1955).

86 Stephan Johannes Seidlmayer, *Gräberfelder aus dem Übergang vom Alten zum Mittleren Reich: Studien zur Archäologie der Ersten Zwischenzeit*, SAGA 1, Heidelberg: Heidelberger Orientverlag (1990): 386 and abb. 164.

87 For Meidum Bowls, see, W.M. Flinders Petrie, *Meydum*, London: Quaritch (1892): 35–36; Pascal Ballet, "Essai de classification des coupes type Maidum-Bowl du sondage nord de 'Ayn-Asīl (Oasis de Dakhla). Typologie et evolution," *Cahiers de*

la Céramique égyptienne I (1987) 1–16; Lees Op de Beck, “Restrictions for the Use of Maidum-Bowls as Chronological Indicators,” *Chronique d’Égypte* 75 (2000): 5–12; Lees Op de Beck, “Possibilities and Restrictions for the Use of Maidum-Bowls as Chronological Indicators,” *Cahiers de la Céramique Égyptienne* 7 (2004): 239–280.

88 Lees Op de Beck, “Possibilities and Restrictions for the Use of Maidum-Bowls as Chronological Indicators,” *Cahiers de la Céramique Égyptienne* 7 (2004): 242.

89 See examples from Giza in George A. Reisner, *A History of the Giza Necropolis, Volume II: The Tomb of Hetep-heres the Mother of Cheops*, Cambridge: Harvard University Press (1955): fig. 110.

90 See examples from Giza in George A. Reisner, *A History of the Giza Necropolis, Volume II: The Tomb of Hetep-heres the Mother of Cheops*, Cambridge: Harvard University Press (1955): fig. 114; William Kelly Simpson, *The Mastabas of Kawab, Khafkhufu I and II*, Giza Mastabas 3, Boston: Museum of Fine Arts (1978): fig. 71.

91 Form CD20 at the Giza pyramid town, Mark Lehner and Wilma Wetterstrom, *Giza Reports, The Giza Plateau Mapping Project, Volume I: Project History, Survey, Ceramics, and Main Street and Gallery III.4 Operations*, Boston: Ancient Egypt Research Associates, Inc. (2007): Fig. 11.23.

92 Colin A. Hope and Ann McFarlane, *Akhmim in the Old Kingdom, Part II: The Pottery, Decoration Techniques and Colour Conventions*, ACE Studies 7, Oxford: Aris Phillips (2006): Fig. 1 and page 37. See especially note 66.

93 George A. Reisner, *A History of the Giza Necropolis, Volume II: The Tomb of Hetep-heres the Mother of Cheops*, Cambridge: Harvard University Press (1955): fig. 107; Ann Macy Roth, *A Cemetery of Palace Attendants*, Giza Mastabas, Volume 6, Boston: Museum of Fine Arts (1995): Fig. 86, type c-xxx a(2); Kent R. Weeks, *Mastabas of Cemetery G 6000*, Giza Mastabas, Volume 5 Boston: Museum of Fine Arts (1994): fig. 128 (25–12–50).

94 Teodozja Isabela Rzeuska, “3. Saqqara West 1998,” *Bulletin de Liaison du Groupe International d’étude de la Céramique Égyptienne* XXII (2004): fig. 4.

95 George A. Reisner, *A History of the Giza Necropolis, Volume II: The Tomb of Hetep-heres the Mother of Cheops*, Cambridge: Harvard University Press (1955): fig. 107.

96 See Miroslav Barta, “Several Remarks on Beer Jars Found at Abusir,” *Cahier de la Céramique Égyptienne* 4 (1996): 128–131.

97 George A. Reisner, *A History of the Giza Necropolis, Volume II: The Tomb of Hetep-heres the Mother of Cheops*, Cambridge: Harvard University Press (1955): fig. 123 (36–12–22).

98 George A. Reisner, *A History of the Giza Necropolis, Volume II: The Tomb of Hetep-heres the Mother of Cheops*, Cambridge: Harvard University Press (1955): fig. 117; Kent R. Weeks, *Mastabas of Cemetery G 6000*, Giza Mastabas, Volume 5 Boston: Museum of Fine Arts (1994): fig. 130 (25–12–133); Form CD22A at the Giza pyramid town, Mark Lehner and Wilma Wetterstrom, *Giza Reports, The Giza Plateau Mapping Project, Volume I: Project History, Survey, Ceramics, and Main Street and Gallery III.4 Operations*, Boston: Ancient Egypt Research Associates, Inc. (2007): Fig. 11.25.

99 See Dina Faltings, *Die Keramik der Lebensmittelproduktion im Alten Reich: Ikonographie und Archäologie eines Gebrauchsartikels*, SAGA 14, Heidelberg (1998): 60–88.

100 Dina Faltings, *Die Keramik der Lebensmittelproduktion im Alten Reich: Ikonographie und Archäologie eines Gebrauchsartikels*, SAGA 14, Heidelberg (1998): abb. 6a–6b.

101 See, for example, material from Haraga: Stufe I-II and Sedment, Stephan Johannes Seidlmayer, *Gräberfelder aus dem Übergang vom Alten zum Mittleren Reich: Studien zur Archäologie der Ersten Zwischenzeit*, SAGA 1, Heidelberg: Heidelberg

Orientverlag (1990): abb. 101, 111, respectively, and his chronological reconstruction, Abb. 168.

102 Helen Jacquet-Gordon, "A Tentative Typology of Egyptian Bread Moulds," pages 11–24 in *Studien zur altägyptischen Keramik*, edited by Dorothea Arnold; Mainz am Rhein: Verlag Philipp von Zabern (1982): Fig. 4.

103 Miroslav Verner, *The Pyramids, The Mystery, Culture, and Science of Egypt's Great Monuments*, New York: Grove Press (2001): 296.

104 William C. Hayes, "Royal Decrees from the Temple of Min at Coptus," *Journal of Egyptian Archaeology* 32 (1946): 20. Some scholars have been convinced by Hayes's argument, Donald B. Redford, *Pharaonic King-lists, Annals and Day-books: A Contribution to the Egyptian Sense of History*, SSEA Publication IV, Mississauga: Benben Publications (1986): 143. Others have ignored this connection, Jürgen von Beckerath, *Handbuch der ägyptischen Königsnamen*, Mainz: Philipp von Zabern (1999):69–70.

105 Donald B. Redford, personal communication; Donald B. Redford, "The T-A Vaults," unpublished field report (1998).

106 The Nile Delta is a geologically difficult place to conduct excavation into the early periods of Egypt's history. By most excavation accounts, the water table has been found to obscure most sites' stratigraphy dating before the New Kingdom. And major pumping operations have been, in many cases, the only way to access any earlier material. The cost of these water removal projects is prohibitive for many expeditions. The geography at Mendes, then, offers a serendipitous opportunity for the exploration of the dawn of the Egyptian state in the Delta.

107 Douglas J. Brewer and Robert J. Wenke, "Transitional Late Predynastic – Early Dynastic Occupations at Mendes: a Preliminary Report," pages 191–197 in *The Nile Delta in Transition: 4th–3rd Millennium B.C.*, edited by Edwin C.M. van den Brink, Tel Aviv: Edwin C.M. van den Brink (1992); Renee F. Friedman, "The Early Dynastic and Transitional Pottery of Mendes: The 1990 Season," pages 199–205 in *The Nile Delta in Transition: 4th–3rd Millennium B.C.*, edited by Edwin C.M. van den Brink, Tel Aviv: Edwin C.M. van den Brink (1992).

108 Mark Lehner, "The Pyramid Age Settlement of the Southern Mount at Giza," *JARCE* 39 (2002): 59–64; Mark Lehner and Wilma Wetterstrom (eds.), *Giza Reports, The Giza Plateau Mapping Project, Volume I: Project History, Survey, Ceramics, and Main Street and Gallery III.4 Operations*, Boston: Ancient Egypt Research Associates, Inc. (2007).

109 H. Whitehouse, "King Den in Oxford," *Oxford Journal of Archaeology* 6 (1987): 261, as cited by Toby A.H. Wilkinson, *Early Dynastic Egypt*, London: Routledge (1999): 75.

110 Toby A.H. Wilkinson, *Early Dynastic Egypt*, London: Routledge (1999): 75.

111 Toby A.H. Wilkinson, *Early Dynastic Egypt*, London: Routledge (1999): 76.

112 Recorded in the Palermo stone entry x+4, see Toby A.H. Wilkinson, *Early Dynastic Egypt*, London: Routledge (1999): 76.

113 Toby A.H. Wilkinson, *Early Dynastic Egypt*, London: Routledge (1999):76–77.

114 Toby A.H. Wilkinson, *Early Dynastic Egypt*, London: Routledge (1999):75–8.

115 Palermo Stone recto IV.6, Toby A.H. Wilkinson, *Royal Annals of Ancient Egypt, The Palermo Stone and its Associated Fragments*, London: Kegan Paul International (1999): 125.

116 Walter Emery, *Archaic Egypt*, Harmondsworth: Penguin (1961): 93.

117 James E. Quibell, *Hierakonpolis I*, London: Quaritch (1900): pl. XXXIX; for a survey of other indications of conflict in the north during the reign of Khasekhemway), see Toby A.H. Wilkinson, *Early Dynastic Egypt*, London: Routledge (1999):91–94.

118 Stan Hendriks, Dina Faltings, Lies Op de Beck, Dietrich Raue and Chris

Michaels, "Milk, Beer and Bread Technology during the Early Dynastic Period," *MDAIK* 58 (2002): 277–304.

119 Stan Hendriks, Dina Faltings, Lies Op de Beck, Dietrich Raue and Chris Michaels, "Milk, Beer and Bread Technology during the Early Dynastic Period," *MDAIK* 58 (2002): 297–304.

120 Brian Hesse and Deirdre Fulton, "Mendes 2007 Field Search Zooarchaeological Research Project Initial Report, December 2007," unpublished preliminary report (2007).

121 Donald P. Hansen, "Mendes 1965 and 1966," *JARCE* VI (1967): 11–12.

122 Donald P. Hansen, "Mendes 1965 and 1966," *JARCE* VI (1967).

123 This area is being excavated by Christopher Redford under the direction of Donald B. Redford, and will be published separately from this material.

124 See, most recently, Hratch Papazian, *Domain of Pharaoh: The Structure and Components of the Economy of Old Kingdom Egypt*, PhD dissertation, University of Chicago (2005).

125 Hans Goedicke, "Cult-temple and 'State' During the Old Kingdom in Egypt," pages 113–131 in *State and Temple Economy in the Ancient Near East I*, edited by Edward Lipiński, *Orientalia Lovaniensia Analecta* 5, Leuven: Department Orientalistik (1979): 118 and n. 35. Hratch Papazian, *Domain of Pharaoh: The Structure and Components of the Economy of Old Kingdom Egypt*, PhD dissertation, University of Chicago (2005).

126 Hratch Papazian, *Domain of Pharaoh: The Structure and Components of the Economy of Old Kingdom Egypt*, PhD dissertation, University of Chicago (2005): 183f, 291f.

127 T.N. Savel'eva, "Xramovye xozjajstva Egipta vremeni Drevnego carstva (III–VIII dinastii), Moskva, "Nauka". Izdatel'skaja firma "Vostočnaja literatura", (1992) Translation: "The Egyptian Temple Economy in the Old Kingdom (IIIrd–VIIIth Dynasties)," *Annual Egyptological Bibliography*, CD-ROM: AEB 92.0990.

128 W.M. Flinders Petrie, *Abydos II* London: Quaritch (1903): 42 and pl. 14 and 18; Hans Goedicke, *Königliche Dokumente aus dem Alten Reich*, Ägyptologische Abhandlungen, Wiesbaden: Otto Harrassowitz (1967): 22–36.

129 Klaus Baer, *Rank and Title in the Old Kingdom: The Structure of the Egyptian Administration in the Fifth and Sixth Dynasties*, Chicago: University of Chicago Press (1960): 296ff.; Nigel Strudwick, *The Administration of Egypt in the Old Kingdom, The Highest Titles and their Holders*, London: Kegan Paul International (1985): 340–341; Naguib Kanawati, *Akhmim in the Old Kingdom, Part I: Chronology and Administration*, The Australian Centre for Egyptology: Studies 2, Warminster: Aris and Phillips Ltd. (1992): 23–35.

130 For the cult of Min, for example, this period attests a regular priesthood for the first time and, incidently, the first written evidence for a temple complex at Akhmim, Ann McFarlane, *The God Min to the End of the Old Kingdom*, The Australian Centre for Egyptology: Studies 3, Sydney: The Australian Centre for Egyptology (1995): 353, 358.

131 In most cases, the priestly authority in a given province was nearly the same as the civil authority. At Akhmim in the 5th Dynasty, for example, *Mnw-ḥb* was both the governor and the head of the provincial temple of Min; Naguib Kanawati, *Akhmim in the Old Kingdom, Part I: Chronology and Administration*, The Australian Centre for Egyptology: Studies 2, Warminster: Aris and Phillips Ltd. (1992): 26–27.

132 The mastaba of Aha-pw-Ba finds a good architectural and ceramic parallel to the mastaba of *Nj-jbw-nswt* at Dendera, which seems to date from the mid to late 5th-Dynasty (and happens to be the oldest mastaba in its cemetery) just in the midst of the decentralizing reforms discussed here. Henry George Fischer, *Dendera in the Third Millennium B.C.* New York: J.J. Augustin Publisher (1968): 14–21.

133 Nigel Strudwick, *The Administration of Egypt in the Old Kingdom, The Highest Titles and their Holders*, London: Kegan Paul International (1985): 341.

134 Donald B. Redford, "Report on the 9th season of Excavation at Tell el-Ruba/Mendes," *Annales du service des antiquites de l'Egypte* 75 (1999–2000): 18.

135 Donald B. Redford, "The Director's Report on the 1994 Field Season at Mendes," *The Akhenaten Temple Project Newsletter* 1994:4 (1994); Gregory D. Mumford, "A First Intermediate Period Cemetery and Late Old Kingdom Mastaba Field at Mendes," *The Akhenaten Temple Project Newsletter* 1996:2 (1996); Donald B. Redford, "Mendes Environs in the Middle Kingdom," pages 679–682 in *Studies in Honor of William Kelley Simpson*, edited by Peter Der Manuelian, Boston: Museum of Fine Arts (1996).

136 Nancy C. Lovell and Ira Whyte, "Patterns of Dental Enamel Defects at Ancient Mendes, Egypt," *American Journal of Physical Anthropology* 110 (1999): 69–80. Thank you to Gil Stein of The Oriental Institute at the University of Chicago for pointing out to me the importance and usefulness of enamel hypoplasia as a nutritional stress indicator on teeth.

137 χ^2 analysis indicated that this change was not statistically meaningful for the sample size. The study's authors, however, argued well that there was a good possibility that an increased sample size would show a statistically meaningful differentiation; see Nancy C. Lovell and Ira Whyte, "Patterns of Dental Enamel Defects at Ancient Mendes, Egypt," *American Journal of Physical Anthropology* 110 (1999): 80.

138 Barbara Bell, "The Dark Ages in Ancient History. I. The First Dark Age in Egypt," *AJA* 75 (1971): 1–26; Fekri Hassan and Geoff Tassie, "Modelling environmental and settlement change in the Fayum," *Egyptian Archaeology* 29 (2006): 37–40.

139 Luke Oman, Alan Robock, Georgiy Stenchikov, and Thorvaldur Thordarson, "High-latitude eruptions cast shadow over the African monsoon and the flow of the Nile," *Geophysical Research Letters* 33 (2006). See also, http://www.nasa.gov/centers/goddard/news/topstory/2006/volcano_nile.html. "The [annual Nile] inundation of 1783 was not sufficient, great part of the lands therefore could not be sown for want of being watered, and another part was in the same predicament for want of seed. In 1784, the Nile again did not rise to the favorable height, and the dearth immediately became excessive. Soon after the end of November, the famine carried off, at Cairo, nearly as many as the plague," <http://www.physorg.com/news83338494.html>.

140 A new reassessment of the hypothesis of climatic change and famine in the late Old Kingdom has recently appeared, Nadine Moeller, "The First Intermediate Period: A time of Famine and Climate Change?" *Ägypten und Levante/Egypt and the Levant* XV (2005): 153–167. In this study, Moeller argues that 'food-shortage', not 'famine', took place in Ancient Egypt at this time, and that "food shortage" occurs with the regular fluctuations in the Nile. She thus (with the additional use of paleo-climatological data) dismisses the idea of major 'famine' in Egypt. She uses the distinction between "famine" and "food-shortage" established by Garnsey, that "famine" is defined as "a critical shortage of essential foodstuffs leading through hunger to starvation and a substantially increased mortality rate in a community of region," see, Peter Garnsey, *Famine and Food supply in the Graeco-Roman world. Responses to risk and crisis*, Cambridge (1988): 3–16. There can be no doubt, with the evidence of Phase I, that real "famine" occurred at Mendes in the late Old Kingdom, as there is clearly an increased mortality rate.

141 Donald P. Hansen, "Mendes 1965 and 1966," *JARCE* VI (1967): 11; Donald P. Hansen, "Excavation of a Stratified Pharaonic site in the Egyptian Delta at Mendes, 1966 Season," *Newsletter of the American Research Center in Egypt* 61 (1967): 9;

Christine L. (Soghor) Lilyquist, "Mendes 1965 and 1966. II. Inscriptions from Tell el Ruba," *Journal of the American Research Center in Egypt* 6 (1967): 27–29; Donald B. Redford, "Mendes," pages 376–377 in *The Oxford Encyclopedia of Ancient Egypt*, edited by Donald B. Redford, Cairo: The American University in Cairo Press by arrangement with Oxford University Press (2001).

142 Gregory D. Mumford, "A First Intermediate Period Cemetery and Late Old Kingdom Mastaba Field at Mendes," *The Akhenaten Temple Project Newsletter* 1996:2 (1996).

143 It is regrettable that a strong internal ceramic chronology of this period has not yet been established for settlement sites (particularly in the Delta). Future work in Field AJ North aims to produce such a chronology with future work.

144 See especially, Stephan Johannes Seidlmayer, *Gräberfelder aus dem Übergang vom Alten zum Mittleren Reich: Studien zur Archäologie der Ersten Zwischenzeit*, SAGA 1, Heidelberg: Heidelberger Orientverlag (1990): 386 and abb. 164.

145 See, for example, material from Haraga: Stufe I–II and Sedment, Stephan Johannes Seidlmayer, *Gräberfelder aus dem Übergang vom Alten zum Mittleren Reich: Studien zur Archäologie der Ersten Zwischenzeit*, SAGA 1, Heidelberg: Heidelberger Orientverlag (1990): abb. 101, 111, respectively, and his chronological reconstruction, Abb. 168.

146 Helen Jacquet-Gordon, "A Tentative Typology of Egyptian Bread Moulds," pages 11–24 in *Studien zur altägyptischen Keramik*, edited by Dorothea Arnold; Mainz am Rhein: Verlag Philipp von Zabern (1982): Fig. 4.

147 Miroslav Verner, *The Pyramids, The Mystery, Culture, and Science of Egypt's Great Monuments*, New York: Grove Press (2001): 296.

148 For the identification of Neferirkare as the last king of the Memphite line, see William C. Hayes, "Royal Decrees from the Temple of Min at Coptus," *Journal of Egyptian Archaeology* 32 (1946).

149 One of the latest inscribed mastabas of the Old Kingdom cemetery yet discovered was a mudbrick mastaba originally uncovered by the NYU excavations and more fully explored by the Pennsylvania State University expedition (Unit AJ-Y). Beneath the mastaba substructure was a large monolithic limestone sarcophagus. The exterior east side of the sarcophagus had a single band of text along the top, indicating the deceased's title as the Overseer of Priests of Banebdjed, and two Udjat-eyes beneath the northern edge of the text. The style of coffin appears late in the Old Kingdom and conforms to Willems' "Type I", see Harco Willems, *Chests of Life. A Study of the Typology and Conceptual Development of Middle Kingdom Standard Class Coffins*, Leiden: Ex Oriente Lux (1988): 122ff. The tomb had clearly been robbed in antiquity. The lid was hacked open in one corner and a clear series of robbers' trenches, where they attempted to locate the sarcophagus, probed into the superstructure. If the robbery of this tomb could be equated to the general destruction of tombs in the necropolis associated with the cataclysm, this tomb would add further support for a quite late 6th Dynasty date for the destruction.

150 See, for example, unit AL-K, Gregory D. Mumford, "A First Intermediate Period Cemetery and Late Old Kingdom Mastaba Field at Mendes," *The Akhenaten Temple Project Newsletter* 1996:2 (1996).

151 Donald P. Hansen, "Mendes 1965 and 1966," *Journal of the American Research Center in Egypt* VI (1967): 10ff.

152 Donald P. Hansen, "Mendes 1965 and 1966," *Journal of the American Research Center in Egypt* VI (1967): 10–11, pl. III.

153 W.M. Flinders Petrie and Guy Brunton, *Sedment I*, London: Quaritch (1924): pls. XXIX and XXXIII.

154 Stephan Johannes Seidlmayer, *Gräberfelder aus dem Übergang vom Alten zum Mittleren Reich: Studien zur Archäologie der Ersten Zwischenzeit*, SAGA 1, Heidelberg:

Heidelberger Orientverlag (1990): abb. 138, 138, and 137, respectively.

155 Ahmad el-Sawi, *Excavations at Tell Basta: Report of the Seasons 1967–1971 and Catalogue of Finds*, Prague: Charles University (1979): 74–75, Figs. 4, 156a–b.

156 See plans in Alexander Badawy, *A History of Egyptian Architecture. Vol. I. From the Earliest Times to the End of the Old Kingdom*, Sh. Studio Misr: Giza, Egypt (1954): Figs. 39–41.

157 Alexander Badawy, *A History of Egyptian Architecture. The First Intermediate Period, the Middle Kingdom, and the Second Intermediate Period*, Berkeley: University of California Press (1966): fig. 6a.

158 Alexander Badawy, *A History of Egyptian Architecture. The First Intermediate Period, the Middle Kingdom, and the Second Intermediate Period*, Berkeley: University of California Press (1966): fig. 1a.